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SITUATION OF H. M. SHIPS HECCLA & FURY.

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THREE VOYAGES
FOR THE
DISCOVERY OF A NORTH-WEST PASSAGE
FROM THE
ATLANTIC TO THE PACIFIC,
AND NARRATIVE OF
AN ATTEMPT TO REACH THE
NORTH POLE.

BY
SIR W. E. PARRY, CAPT. R.N., F.R.S.

FIVE VOLUMES. WITH PLATES.

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THREE VOYAGES

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ABOUT the first and second weeks in April, the Esquimaux were in the habit of coming up the inlet, to the southward of the ships, to kill the *neitiek*, or small seal, which

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brings forth its young at this season, and probably retires into sheltered places for that purpose. Besides the old seals, which were taken in the manner before explained, the Esquimaux also caught a great number of young ones, by fastening a hook to the end of a staff, and hooking them up from the sea-hole after the mother had been killed. Our large fish-hooks were useful to them for this purpose, and the beautiful silvery skins of these young animals were occasionally brought to the ships as articles of barter: those of the foetus of the *neitiek* are more yellow than the others, and, indeed, both in colour and texture, very much resemble raw silk.

We could at this season just make out that a stone was here and there more perceptible on shore than during the winter, owing to the tops of them being uncovered by the sun's rays; but this was the only change that could be observed. We had frequent occasion to notice, about this time, that a copious deposit of snow-crystals, of a large size, and of a beautiful arborescent

form, took place every night, as soon as the temperature of the atmosphere fell some degrees below that of the day, just as the dew falls in temperate climates. On the 13th a grouse was observed upon the rubbish-heap alongside the Hecla.

It is now once more my painful duty to record an afflicting visitation of Providence, which took place among us on the morning of the 15th, in the death of Mr. Alexander Elder, Greenland mate of the Hecla. He had complained on several different occasions in the course of this and the preceding winter, of pulmonary affections, to which perhaps a full habit of body may, in some degree, have contributed. His disease was now, however, a confirmed dropsy, which, having attacked the region of the heart, rapidly terminated his existence. Mr. Elder had served in the three successive Expeditions employed for the discovery of a North-West Passage, and, as a reward for his good conduct, had been raised from the situation of leading man to that of mate, in which last capacity he

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served both in the Griper and the Hecla. He died much regretted by many of the officers and men, who had known him several years, and by none more deeply than myself. Most sincerely, indeed, do I lament the occasion which demands from me this tribute, due to the memory of an active and valuable seaman, as well as an honest and upright man. His remains were committed to the ground near the Observatory, with all the solemnity that the occasion demanded, and a tomb of stones, with a handsome tomb-stone, raised over the grave.

The first ducks noticed by the Esquimaux were mentioned to us on the 16th, and a few days afterwards immense flocks appeared, all of the king-duck species, about the open water near the margin of the ice, but our distance from this was so great, that we never saw any of them, and the weather was yet too cold to station a shooting party in that neighbourhood. Dovekies were now also numerous, and a gull or two, of the silvery species, had been seen.

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On the 20th, after divine service, I took the opportunity of Captain Lyon and his people being on board the Fury, to communicate to the assembled officers and ships' companies my intentions respecting the future movements of the Expedition ; at the same time requesting Captain Lyon to furnish me with a list of any of the Hecla's men that might volunteer to remain out, as it would be necessary to fill up, or perhaps even to increase, the complement of the Fury.

Our preparations were, therefore, immediately commenced, a twelve months' provision and other stores being received by the Fury, and various necessary exchanges made in anchors, cables, and boats ; and in the course of a single fortnight, the whole of these were transported from ship to ship without any exposure or labour to the men outside their respective ships, our invaluable dogs having performed it for us with astonishing ease and expedition. It was a curious sight to watch these useful animals walking off with a bower-anchor, a boat, or

a topmast, without any difficulty; and it may give some idea of what they are able to perform, to state, that nine dogs of Captain Lyon's dragged sixteen hundred and eleven pounds, a distance of seventeen hundred and fifty yards in nine minutes, and that they worked in a similar way between the ships for seven or eight hours a day. The road was, however, very good at this time, and the dogs the best that could be procured.

The wind settling to the southward for a few days near the end of April, brought an increased, and, to us, a comfortable degree of warmth; and it was considered an event of some interest, that the snow, which fell on the 29th, dissolved as it lay on our decks, being the first time that it had done so this season. We now also ventured to take off some of the hatches for an hour or two in the day, and to admit some fresh air, a luxury which we had not known for six months. The Esquimaux, about this time, began to separate more than before, according to their usual custom in the spring;

some of them, and especially our Winter Island acquaintance, setting off to the little islands called Oolglit, and those in our neighbourhood removing to the north-east end of Igloolik, to a peninsula called *Keiyuk-tarruoke*, to which the open water was somewhat nearer. These people now became so much incommoded by the melting of their snow huts, that they were obliged to substitute skins as the roofs, retaining, however, the sides and part of the passages of the original habitations. These demitents were miserable enough while in this state, some of the snow continually falling in, and the floor being constantly wet by its thawing.

On the 26th, Captain Lyon went out on his sledge to Arlagnuk, and succeeded in killing fourteen pair of king-ducks, a part of which only the Esquimaux, who picked them up in their canoes, thought proper to return, secreting the rest for their own use. Finding that nothing but a boat was wanting to ensure us a supply of ducks from time to time, we now sent a part with an

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officer, and our small boats from each ship, these being carried on sledges to Arlagnuk, where our shooting parties were established close to the open water, which extended from thence to the south eastward, as far as the eye could reach.

Favourable as the first part of the month of May had appeared, with respect to temperature, its close was by no means equally promising, and on the first of June, at two A.M., the thermometer stood at $+8^{\circ}$. This unusually low temperature, much exceeding in severity any thing we had experienced at Melville Island at the same season, rendered it necessary to defer for a time a journey which it was proposed that Captain Lyon should undertake, across the land to the westward at the head of Quilliam Creek, and thence, by means of the ice, along the shores of the Polar Sea, in the direction towards Akkoolee. The object of this journey, like that of most of the others which had been performed in various directions, was to acquire all the information within our reach, of those

parts of the continental coast to which the ships were denied access; and it was hoped, that at the coming season some judgment might be formed of the probable state of the ice along that shore in the summer, by which the future movements of the *Fury* might be influenced. Captain Lyon was to be accompanied by two men, and a complete supply of every kind for a month's travelling was to be drawn on a sledge by ten excellent dogs, which he had taken great pains to procure and train for such occasions. As I was desirous of ascertaining, beyond any doubt, the identity of the *Khemig*, to which I had sailed in the autumn, with that seen by Captain Lyon on his journey with the Esquimaux, I determined to accompany the travellers on my sledge as far as the head of Quilliam Creek, and by victualling them thus far on their journey, enable them to gain a day or two's resources in advance. Another object which I had in view was to endeavour to find a lake mentioned by Toolemak; who assured me that if I could dig holes in the ice,

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which was five feet thick, plenty of large salmon might be caught with hooks, an experiment which seemed at least well worth the trying.

Our first shooting parties, being relieved on the 5th, brought with them a hundred and twenty ducks, which, as well as all other game that might be procured this season except venison, I directed to be served as an extra allowance to the officers and men. These proved the more acceptable in consequence of our usual supply of the hearts, livers, and kidneys of the walrus having lately failed, the Esquimaux having little or none to spare. So accustomed had we been, indeed, to this supply, that the sudden failure of it was esteemed a greater loss than we could have supposed possible a twelvemonth before.

On the 7th, the weather being more favourable than before, Captain Lyon and myself set out to the westward at half-past eleven A.M., and the ice proving level, reached Khemig at half-past five; when it was satisfactory to find that the route fol-

lowed by Captain Lyon on his journey with Toolemak, was precisely that which I had supposed, every feature of the land, of which the fog had before scarcely allowed him a glimpse, being now easily recognised and every difficulty cleared up. Continuing our journey among the Coxe Islands till seven o'clock, we landed upon one of them, and were not sorry to find abundance of water on every rock, though on the loose soil of the land about the ships none had yet appeared. Proceeding at eight A.M. on the 8th, we soon met with numerous tracks of deer upon the ice, which, together with the seals that lay in great numbers near their holes, expedited our journey very considerably, the dogs frequently setting off at full gallop on sniffing one of them. Landing at the head of Quilliam Creek at half-past one, we took up an advantageous position for looking about us, in order to determine on the direction of Captain Lyon's route over land, which all the Esquimaux concurred in representing as a laborious one. The land is here almost

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entirely high, a range of lofty hills stretching in a north-west and south-east direction at the back of the creek, and intercepting the view to the westward. Much of this rugged land had now lost its snow, and the only route that seemed practicable for a sledge was in about a S.b.E. direction at the foot of the hills, which appeared, afterwards, to take a more westerly turn. We met with several rein-deer immediately on our landing; and while in pursuit of them Captain Lyon discovered a lake two or three miles long and a quarter of a mile broad, a short distance from the tents, which we concluded to be that of which I was in search. As some of our party were suffering from snow-blindness, and, what is scarcely less painful, severe inflammation of the whole face, occasioned by the heat of the sun, we remained here for the rest of this day to make our final arrangements.

At nine A.M. on the 9th we struck the tents, and Captain Lyon set off to the southward, while we drove over to the lake, which is one mile N.N.W. of the

head of the creek, and after three or four hours' labour completed a hole through the ice, which was very dark-coloured, brittle, and transparent, and, as Toolemak had said, about five feet thick. The water, which was eleven fathoms deep, flowed up within a couple of inches of the surface, over which lay a covering of snow eighteen inches in depth. In confident hope of now obtaining some fish, we proceeded exactly according to Toolemak's instructions; but, after four-and-twenty hours' trial at all depths, not even a single nibble rewarded our labour; so that, after obtaining observations, which gave the latitude of the head of the creek $69^{\circ} 32' 20''$, and its longitude $1^{\circ} 33' 14''$ W. of the Fury, we set off on our return down the creek on the 10th.

Coasting the south shore, on which I wished to obtain observations and angles for the survey, we the next day entered a small bay, where we pitched our tent; our whole party being so snow-blind with endeavouring to distinguish the land from the ice, (so entirely were both covered with

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snow,) that we could literally no longer muster one eye among three of us to direct the sledge. I found a handkerchief tied close, but not too tightly, round the eyes for a whole night, to be a more effectual remedy for this disagreeable complaint than any application of eye-water; and my companions being induced to try the same experiment, derived equal benefit from it. The 12th proved so inclement a day, with hard gales from the N.W. and N.E., and continued snow and drift, that no observations could be obtained, and we were glad to keep within the shelter of the tent. On the following day, after waiting for observations, which gave the lat. $69^{\circ} 18' 33''$, and the long. $31^{\circ} 36''$ W. of the Fury, we set off for Arlagnuk, where I wished to visit our shooting parties. A bay on the south shore, subsequently named after Mr. Mogg, of the Hecla, was reserved for future examination, it being impossible to distinguish the coast line till the snow was more cleared from the land; this was, in fact, much less the case at this period than

it had been during the second week in May. Reaching Arlagnuk towards evening, we found that our parties had each thirty or forty ducks ready for the ships; and that the Esquimaux had lately altogether deserted this station, owing to the scarcity of walruses, and had removed to Ooglit, where these animals were said to be abundant at this season. Leaving our people on the morning of the 14th, I returned on board soon after noon, where I found that nothing worthy of particular notice had occurred during my absence.

On the 20th three or four other Esquimaux, strangers to us, arrived at Igloolik from the northward, and we found from two young men who visited us on the following day, that they came from *Too-nōō-nek*, a place undoubtedly situated somewhere on the western coast of Baffin's Bay, or about some of the inlets communicating with it, as they had there seen several *Kab-loona* ships employed in killing whales. It is not improbable, from the various accounts of the direction and distance of

Toonoonek, communicated by the Esquimaux through the usual medium of their charts, that the part of the sea-coast so named lies at no great distance from Pond's Bay, in lat. $72\frac{1}{2}^{\circ}$, which has lately become a common rendezvous of our Davis' Strait fishermen. Of this fact we had, in the course of the winter, received intimation from these people from time to time, and had even some reason to believe that our visit to the Esquimaux of the River Clyde in 1820 was known to them; but what most excited our interest at this time was the sledge brought by the new comers, the runners being composed of large single pieces of wood, one of them painted black over a lead-coloured priming, and the cross-bars consisting of heading-pieces of oak-buts, one flat board with a hinge-mark upon it, the upper end of a skid or small boat's davit, and others that had evidently and recently been procured from some ship. On one of the heading-pieces we distinguished the letters *Brea*—, showing that the cask had, according to the

custom of the whalers, contained bread on the outward passage. The nature of all these materials led us to suppose that it must have been procured from some vessel wrecked or damaged on the coast; and this suspicion was on the following day confirmed by our obtaining information that, at a place called *Akkōōdneak*, a single day's journey beyond Toonoonek, two ships like ours had been driven on shore by the ice, and that the people had gone away in boats equipped for the purpose, leaving one ship on her beam ends, and the other upright, in which situation the vessels were supposed still to remain*.

We observed on this occasion, as on our first arrival at Igloolik, that the new Esquimaux were obliged to have recourse to the others to interpret to them our meaning, which circumstance, as it still appeared to me, was to be attributed, as before, to our

* We have since heard that these ships were the *Dexterity*, of Leith, and the *Aurora*, of Hull, which were wrecked on the 28th of August, 1821, about the latitude of 72°.

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speaking a kind of broken Esquimaux that habit had rendered familiar to our old acquaintance, rather than to any essential difference in the true languages of the two people.

Toolemak, having, some time before, promised to accompany me to the fishing-place, taking with him his wife, together with his sledge, dogs, and tent, made his appearance from Ooglit on the 23d, bringing, however, only the old lady and abundance of meat. Having lent him a tent and two of our dogs, and hired others to complete his establishment, we set out together at five A.M. on the 24th, my own party consisting of Mr. Crozier and a seaman from each ship. Arriving at Khemig towards noon, we found among the islands that the ice was quite covered with water, owing probably to the radiation of heat from the rocks. The weather proved indeed intensely hot this day, the thermometer in the shade, at the ships, being as high as 51° , and the land in this neighbourhood preventing the access of wind from any

quarter. The travelling being good beyond this, we arrived within four or five miles of the head of Quilliam Creek at ten P.M., where we pitched the tents for the night. In this day's journey ten dogs had drawn my sledge a distance of forty statute miles since the morning, the weight on the sledge being about twelve hundred pounds, and half of the road very indifferent. It is the custom of the Esquimaux, even when meat is most abundant, to feed these invaluable animals only once a day, and that in the evening, which they consider to agree with them better than more frequent meals; we always observed the same practice with ours, and found that they performed their journeys the better for it.

We saw, in the course of the day, a few deer, numerous king and long-tailed ducks, and red-throated divers; also some geese, then new to us, and which, on procuring a specimen a day or two after, proved to be the snow-goose (*anas hyperborea*). These last are fond of feeding on the wet grass and moss on the banks of the numerous

streams and lakes in this country. They were seen at Arlagnuk, and by Captain Lyon on his journey, about the same time, so that the period of their arrival in this latitude seems to have been very well marked.

On the morning of the 25th, while passing close to a point of land, Toolemak suddenly stopped his sledge, and he and his wife walked to the shore, whither I immediately followed them. The old woman, preceding her husband, went up to a circle of stones, of which there were two or three on the spot, and kneeling down within it, cried most loudly and bitterly for the space of two or three minutes, while Toolemak also shed abundant tears, but without any loud lamentation. On inquiring presently after, I found that this was the spot on which their tent had been pitched in the summer, and that the bed-place, on which the old woman knelt, had been that of their adopted son *Noogloo*, whose premature death we had all so much regretted. The grief displayed on this occasion seemed to have much sincerity in

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it, and there was something extremely touching in this quiet but unaffected tribute of sorrow on the spot, which so forcibly reminded them of the object of their parental affection. I have much gratification in adding, in this place, another circumstance, which, though trifling in itself, deserves to be noticed as doing honour to these people's hearts. They had always shown particular attachment to a dog they had sold me, and which bore the same name as a young man, a son of their own, whom they had formerly lost. In the course of this journey, the old woman would constantly call the dog 'Eerninga' (son), which the affectionate animal never failed to repay by jumping up and licking her face all over, whenever his trace would allow him; and at night, after Toolemak had fed his own dogs, he frequently brought to our tent an extra piece of meat, expressly for *Annōwtalik*, to whom these poor people seemed to take a mournful pleasure in now transferring their affection.

Landing close to the head of the inlet on

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the south shore, we proceeded with difficulty a couple of miles over land, till we came to a river, the limits of which the warmth of the weather was just rendering discernible, and which our guides informed us was to be our fishing-place. It was interesting to observe that, in every case of doubt as to the situation of a place, the best route, or the most advisable method of overcoming any difficulty, Toolemak invariably referred to his wife; and a consultation of some minutes was held by these two before they would determine on what was to be done, or even return an answer to our questions respecting it. Pitching our tents upon the banks of the river, we went upon the ice, which was still quite solid except close to the shores, and soon made two or three holes for a hook and line, the thickness of the ice in the middle being from six to seven feet. The Esquimaux fish-hook is generally composed of a piece of ivory, having a hook of pointed iron, without a barb, let into it. The ivory they consider useful in attracting the salmon, but they

also bait the hook with a piece of blubber well cleared of its oil by chewing, and securely tied on with a thread of sinew, so as to cover nearly the whole of the hook. A small piece of bone, rein-deer's horn, or wood, serves as a rod, and with this they keep the bait constantly in motion up and down, the bait being from one to three feet below the lower surface of the ice. Previously, however, to commencing the fishery, the old lady, who took the principal part in this employment, muttered some words, to me altogether incomprehensible, over the hole, to which Toolemak, in a formal manner, added something about fish and *Kabloonas*; and the whole of this preparatory ceremony seemed intended to propitiate the spirit, to whose department the salmon particularly belonged. The lady (for it seems she is a female) did not, however, appear to lend a very favourable ear to our wants or Toolemak's rhetoric, for after many hours' patient trial on this and the following day, only two fish were seen and one caught, to repay our labour.

On the 27th Toolemak and his wife went over to a small shallow lake, on the opposite side of the river, where they caught three or four fish of the salmon kind, but none more than one pound in weight. He then came back to the tent, and made a small spear according to their own fashion; but with this, to his great disappointment, he could not strike a single fish. A sort of *fish-gig*, which we made out of four large hooks lashed back to back at the end of a light staff, succeeded much better, the bait being played in the usual manner to attract the fish, which were then hooked up with great ease and certainty by this instrument. In this manner we soon caught a dozen of the same kind as before; and the rest of our party had in the mean time killed a deer.

Toolemak began now to be extremely impatient to return home, his principal anxiety arising, I believe, from a childish desire to know what I should give him for his trouble; and when, in writing a note to Lieutenant Nias, I enumerated the articles

I intended to present to him, he expressed more delight than I had ever before seen escape him. Among these was one of the rifle-guns supplied as presents, together with a sufficient quantity of ammunition to last him one summer, after which the gun would probably become useless itself for want of cleaning. It was astonishing to see the readiness with which these people learned to fire at a mark, and the tact they displayed in everything relating to this art. Boys from twelve to sixteen years of age would fire a fowling-piece, for the first time, with perfect steadiness; and the men, with very little practice, would very soon become superior marksmen*. As, however, the

* A fine lad, of about sixteen, being one day out in a boat with one of our gentlemen at Arlagnuk, reminded him, with a serious face, that he had laid a gun down *full-cocked*. There happened to be no charge in the gun at the time; but this was a proof of the attention the boy had paid to the art of using fire-arms, as well as an instance of considerate and manly caution, scarcely to have been expected in an individual of that age.

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advantage they could derive from the use of fire-arms must be of very short duration, and the danger to any careless individuals very considerable, we did not on any other occasion consider it prudent to furnish them in this manner.

On the morning of the 28th, Toolemak left us for the ships, carrying with him our venison to be left there, and having first explained when and where the Esquimaux catch the fish with which he had supplied us the preceding summer; for it now appeared that they were not found in great abundance, or of that magnitude, in the river, but at the mouth of a very small stream about two miles lower down the creek on the same side. Their method is, to place in the bed of the stream, which is quite narrow and seldom or never so deep as a man's middle, though running with great force, two or three separate piles of stones, which serve the double purpose of keeping off the force of the stream from themselves, and of narrowing the passage through which the fish have to pass in com-

ing up from the sea to feed; thus giving the people an opportunity of striking them with their spears, and throwing them on shore without much difficulty. We at first supposed that the salmon ascended the stream into lakes above for the purpose of spawning; but this could not here be the case, as the water became much too shallow for this at less than a hundred yards from the sea. Our fishermen afterwards found that they never went up a quarter of that distance, merely playing about the entrance to pick up their food, which was found to consist of a very small fish abundant at the mouth of the stream. The latter are probably, therefore, brought down by the streams at this season from the lakes above, and occasion the salmon to resort to the spots in which, it seems, they are annually found by the Esquimaux. With respect to their spawning, it does not appear necessary for them to ascend any streams for that purpose, if abundance of fresh water be all that is requisite for it; as the water of the creek was not merely drink-

able, but perfectly fresh almost down to its entrance.

After Toolemak's departure we remained two or three days longer, but only succeeded in killing one more deer and three or four dozen fish of the same kind and size as before. The whole country had by this time become almost deluged with water, innumerable ponds and streams appearing on every side, as if all at once let loose by magic; so rapid had been the change during a single week of fair and temperate weather! The ice on the deep lakes was from five to seven feet in thickness, and bade fair not to be entirely dissolved during the summer; that on the shallow ones was already very thin, and rapidly decaying.

On the afternoon of the 1st of July we shifted our tents over-land, and down the creek as far as the salmon stream. In performing this short journey over bare ground, I was enabled to form some conception of the difficulties likely to be encountered by Captain Lyon and his companions; for even with our light load the

dogs could scarcely move at times. One of the strongest of eleven fell down in a fit, occasioned by over-exertion; the poor animal lay on his side, foaming at the mouth for a minute or two, but soon recovered sufficiently to be able to walk; and being taken out of the sledge, was quite strong again the next day. We had scarcely arrived at the stream, when Toolemak's account was very satisfactorily confirmed by our finding on the ice near its mouth part of two fine salmon, above two feet in length, that had been thrown up by the force of the torrent, and a similar one was seen in the water. Our provisions being now out, we prepared for returning to the ships the following day; and I determined in a short time to send out Mr. Crozier with a larger party, well equipped with everything necessary for procuring us both fish and deer. We therefore left our tent, spare ammunition, and various other articles that would be required here, buried under a heap of stones near the stream, and on the morning of the 2d set out for the ships.

The change which one week had made upon the ice it is quite impossible to conceive, the whole surface being now chequered with large and deep pools of water, where not a symptom of thawing had before appeared. This continued the whole way to the ships, which we reached at eight P.M., finding Captain Lyon and his party returned, after a laborious but unsuccessful endeavour to penetrate over-land to the westward.

Had it not been for our preceding year's experience in this neighbourhood, the present appearance of the ice, and the rapid progress which it seemed to be daily making towards dissolution, would have flattered us with hopes of an early release, which, as we now too well know, must have ended in disappointment. The space we had covered with sand, and which was now called the canal, was from a foot to eighteen inches deep, with water throughout its whole extent; and such was the benefit evidently to be derived from it, that could the same thing have been carried the whole way

down to the open water, the first southeasterly gale would probably have caused a total disruption, and at once liberated the ships. As it was, there could be little doubt that it would still very considerably facilitate our escape, which, with this assistance, it was reasonable to hope might yet be effected before the conclusion of the month of July, though we had still six miles of ice interposed between us and the open water.

Our shooting parties to the southward had of late been tolerably successful, not less than two hundred and thirty ducks having been sent into the ships in the course of the last week. Mr. Ross had procured a specimen of a gull having a black ring round its neck, and which, in its present plumage, we could not find described. This bird was alone when it was killed, but flying at no great distance from a flock of tern, which latter it somewhat resembles in size as well as in its red legs; but is on closer inspection easily distinguished by its beak and tail, as well as by

a beautiful tint of most delicate rose-colour on its breast.

The first continued rain that we had seen this season fell for several hours on the morning of the 2d, though a few drops had before been observed on the 15th and 29th of June. For the remainder of the month of July we experienced a great deal of rain and fog, with long southerly and easterly winds, and a high mean daily temperature.

On my arrival at the ships I found several new Esquimaux on board, who, to the number of twenty, had lately arrived from *Toonōōnee-rōōchiuk*, a place situated to the westward and northward of Igloolik, and somewhere upon the opposite coast of Cockburn Island. The distance to this place was stated by the Esquimaux to be from six to eight days' journey, of which one only was occupied in crossing to the great northern inlet we had seen on this side of Cockburn Island, and the rest in travelling over-land to a corresponding inlet of the sea on the other. This party confirmed the former account respecting the

two ships that had been forced on shore ; and, indeed, as an earnest of its truth, one man named *Adloo*, who was said to have actually seen them in this state, was a day or two afterwards met by our people at Arlagnuk, while travelling to the southward, and having on his sledge a great deal of wood of the same kind as that before described.

This information having excited considerable interest, Lieutenant Hoppner, who had taken great pains to ascertain the facts correctly, volunteered his services to accompany some of the Esquimaux, who were said to be going northwards very shortly, and to obtain every information on this and other subjects which might lie within the scope of such a journey. Although I was not sanguine as to his principal object of reaching one or more of the Esquimaux stations on the northern shores of Cockburn Island, with guides so uncertain and capricious, yet I could not but consider the attempt as likely to produce something of interest ; more especially as

we had never been able to approach, in the ships, those parts of the coast which would constitute their first or second day's journey. I therefore directed Lieutenant Hoppner to proceed on this service accompanied by three men, and four of the Hecla's best dogs, to assist in carrying the baggage. On the night of the 4th, having heard that a party of the Esquimaux intended setting out the following morning, Lieutenant Hoppner and his people went out to their tents to be in readiness to accompany them. We were surprised to find, the next day, that not only Lieutenant Hoppner's intended guide, but the whole of the rest of these people, had altogether left the island, and, as it afterwards proved, permanently for the summer. We were now, therefore, for the first time since our arrival here, entirely deserted by the natives, only two or three of whom again visited the ships during the remainder of our stay. It appears probable, indeed, that these wandering people are in the habit of residing at their various stations only at particular intervals of time,

perhaps with the intention of not scaring the walruses and seals too much by a very long residence at one time upon the same spot. What made this appear still more likely was the present state of their winter habitations at Igloolik, which, though offensive enough at about the same time the preceding year, were then wholesome and comfortable in comparison. Besides quantities of putrid walrus flesh, blubber, and oil, carcasses of dogs, and even of human beings, recently deceased, were now to be seen exposed in their neighbourhood. What remained of the corpse of *Keimōōseuk* was of course wholly uncovered; a second, of a child, on which the wolves had feasted, was also lying about; and a third, of a newly born infant, was discovered in the middle of a small lake by Mr. Richards, who caused them all to be buried under ground. All this seemed to indicate, that the Esquimaux had not occupied the bone huts for at least one winter previous to our arrival, though Igloolik certainly appears to be one of their principal rendezvous, forming, as it

were, a sort of central link in the very extensive chain of these people's peregrinations.

On the 6th we despatched a party of four men, under Messrs. Crozier and Bird, to the fishing station at Quilliam Creek, equipping them with a trawl-net, and every other requisite for obtaining a supply of salmon for the ships. Soon after, Captain Lyon, who was desirous of occupying a few days in shooting in that neighbourhood, also set off in the same direction, taking with him a small skin-boat, which he had constructed for the use of our fishermen, and which proved of great service in shooting the net across the mouth of the stream.

Our stock of meat for the dogs being nearly expended, and no sea-horses having yet been seen near the shore, I sent Mr. Ross with a sledge to Tern Island on the 13th, in expectation of being supplied by the Esquimaux. Mr. Ross returned on the 14th without success, the whole of the natives having left the island after plunder-

ing the birds nests, as they had done the preceding year. The open water was at this time about a mile and a half short of the island, differing little, if anything, from its position at the same season of the last year. The birds, now the most abundant here, besides tern, which were also numerous, were eider-ducks, of which immense flocks were flying about; and it is their eggs for which the Esquimaux principally visit the island.

Finding that our valuable dogs must be now wholly dependent on our own exertions in providing meat, a boat from each ship was carried down to the neighbourhood of the open water, and shortly afterwards two others, to endeavour to kill walruses for them. This was the more desirable from the probability of the *Fury's* passing her next winter where no natives were resident, and the consequent necessity of laying in our stock for that long and dreary season, during the present summer. Our tpeople, therefore, pitched their tents near the old Esquimaux habitations; and thus

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were four boats constantly employed whenever the weather would permit, for the three succeeding weeks.

On the 16th Lieutenant Hoppner and his party returned to the ships, having only been enabled to travel to the south shore of Cockburn Island, on account of their guides not yet proceeding any further. Two of the Esquimaux accompanied our travelers back to Igloolik, and, being loaded with various useful presents from the ships, returned home the following day. He had given the name of **MURRAY MAXWELL** to an inlet observed by him on that coast.

CHAPTER XV.

Extraordinary disruption of ice in Quilliam Creek

—Some appearance of scurvy among the seamen and marines—Discovery of Gifford River—Commence cutting the ice outside the ships to release them from their winter-quarters—Considerations respecting the return of the Expedition to England—Unfavourable state of the ice at the eastern entrance of the strait—Proceed to the southward—Ships beset and drifted up Lyon Inlet—Decease of Mr. George Fife—Final release from the ice, and arrival in England—Remarks upon the practicability of a North-West Passage.

AMONG the various changes which the warmth of the returning summer was now producing around us, none was more remarkable than that noticed by Captain Lyon on his present excursion to Quilliam Creek, and which, in a note received from

him by the return of the sledges, on the 17th, he thus describes :—‘ Between the two points forming the entrance of the creek, we saw a high wall of ice extending immediately across from land to land, and on arriving at it found, that, by some extraordinary convulsion, the floe had burst upwards, and that immense masses of ice had been thrown in every direction. Several blocks, eight or nine feet in thickness, and many yards in diameter, were lying on the level solid floe ; yet we were for some time at a loss to discover whence they had been ejected, till at length we found a hole or pool, which appeared so small as to be hardly capable of containing the immense fragments near it ; yet from this place alone must they have been thrown.’

Captain Lyon subsequently added, that ‘ the water, which was found to be quite fresh, was running rapidly to seaward in this opening ; and it seemed probable that the vast accumulation from the streams at the head of the creek, although at about ten miles distance, had burst a passage,

and thus ejected the ice. The force employed for this purpose may be conceived, when I mention, that, of several masses of ice, one in particular was above eight feet thick, full forty yards in circumference, and lay more than five hundred yards from the pool. No traces could be found of the manner in which these bodies had been transported, as not a single small fragment was seen lying about, to warrant the supposition that they had fallen with a shock. Neither were there any marks observable on the smooth uncracked floe to cause a suspicion that they had slidden over it, the general appearance of the floe, at this place, being the same as at all other parts of the inlet, and bearing no marks of having had any rush of water over it.'

The ducks having now nearly deserted the neighbourhood of Arlagnuk, and the travelling there becoming inconvenient for sledges, our shooting-party was removed to Igloodik, and shortly after recalled on board. The number of ducks procured by both ships, during this part of the season, was

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about nine hundred, of which above two-thirds were king-ducks, and by far the greater part of the rest, of the long-tailed species. The weather was now, at times, extremely sultry, bringing out swarms of mosquitoes, that soon became very troublesome, even on board the ships. A thermometer suspended in the middle of the observatory, and exposed to the sun's rays, was observed by Mr. Fisher to stand at 92° at five P.M. on the 18th.

On the 19th Captain Lyon returned from Quilliam Creek, bringing with him the whole of our party stationed there, the ice being now so broken up in that neighbourhood as to render the fishing dangerous without proper boats. On this journey, which it took two days to perform, eleven dogs drew a weight of two thousand and fifty pounds, of which six hundred and forty were salmon, and ninety-five venison, procured by our people. The fish had all been caught in the trawl; and treble the quantity might easily have been taken with a seine, had we known how wide the mouth

of the stream was to become. They varied in length from twenty to twenty-six inches, and one of the largest, when cleaned, weighed eight pounds and a half; but their average weight in this state did not exceed two pounds and a quarter. The distance of the fishing-place from the ships, the dangerous state of the ice, and the soreness of the dogs' feet from travelling on the rough honey-combed ice, prevented our taking any further advantage of this very acceptable change of diet.

Although the dissolution of the ice was hourly going on, yet no very sensible alteration had taken place for some time past, such as might give us hopes of a speedy release from our confinement. The barrier of ice still remaining fixed between the ships and the sea was above five miles in breadth, though we lay at the very mouth of the bay, and the only chance of our soon getting out rested on an accidental crack in the floe, extending from near the point of Oongalooyat across to the main land, and which had lately become somewhat wider.

Being thus detained, I determined on despatching Lieutenant Hoppner once more to the northward, for the purpose of examining a great bay or inlet of Cockburn Island, that we had never been able to approach in the ships, and which we supposed to correspond with that delineated by the Esquimaux in their charts, as forming the first day's journey to Toonoonee-roochiuk. Lieutenant Hoppner accordingly left us on the 21st with that intention, being accompanied by two men, and furnished with a sledge and ten dogs.

Nothing worthy of notice occurred till the 29th, when a patch of ice, a mile broad, separated from the outer margin of our barrier, and drifted away. The canal formed, by laying sand on the ice, was now quite through in most places, showing that the plan would, in this latitude at least, always ensure a ship's escape at an earlier season than by the regular course of nature, provided it could be carried the whole way down to the open water.

I am now under the disagreeable neces-

sity of entering on a subject, which I had, at one time, ventured to hope need scarcely have occupied any part of this Narrative: I mean that of the scurvy, some slight, but unequivocal, symptoms of which disease were this day reported to me, by Mr. Edwards, to have appeared among four or five of the Fury's men, rendering it necessary, for the first time during the voyage, to have recourse to anti-scorbutic treatment among the seamen and marines. During our first winter, the only instance in which any such symptoms had been discovered, occurred in Mr. Jermain, the purser of the Hecla, who, however, recovered by the usual treatment, as the summer advanced. This short and dubious season being ended, the carpenter and boatswain of the Hecla were also affected; and in the course of the second winter, Mr. Jermain's complaint returned with greater severity. In the months of February and March, Messrs. Henderson, Halse, and Scallon, of the Fury, were occasionally disposed to scurvy; Mr. Edwards was for a week or two pretty

severely attacked by it, and my own gums becoming somewhat livid, rendered a short course of additional lemon-juice necessary to restore them. These cases, however, shortly and permanently recovered; but in the spring, and even as late as the month of June, when there was reason to hope that every symptom of this kind would have been removed by the increased warmth and cheerfulness of the season, and the change of diet afforded by the game, the disease again made its appearance in the carpenter and boatswain of the Hecla, and soon after attacked the gunner and Mr. Fife, the Greenland master. These cases, which were much more severe than any we had before experienced, had not now recovered, when the gums of four or five of the Fury's men betrayed this insidious disease lurking within them, and made it necessary to administer lemon-juice to them in more copious quantities than ordinary.

It will perhaps be considered a curious and singular fact in the history of scurvy, that, during the whole of the pre-

ceding part of this voyage, none amongst us but officers should have been, in the slightest degree, affected by it, a circumstance directly contrary to former experience. To whatever causes this might be attributed, it could not however but be highly gratifying to be thus assured, that the various means employed to preserve the health of the seamen and marines had proved even beyond expectation efficacious.

That a ship's company should begin to evince symptoms of scurvy after twenty-seven months' entire dependence upon the resources contained within their ship, (an experiment hitherto unknown, perhaps, in the annals of navigation, even for one-fourth part of that period,) could scarcely indeed be a subject of wonder, though it was at this particular time a matter of very sincere regret. From the health enjoyed by our people during two successive winters, unassisted as we had been by any supply of *fresh* anti-scorbutic plants, or other vegetables, I had begun to indulge a hope, that,

with a continued attention to their comforts, cleanliness and exercise, the same degree of vigour might, humanly speaking, be ensured at least as long as our present liberal resources should last. Present appearances, however, seemed to indicate differently; for though our sick-list had scarcely a name upon it, and almost every individual was performing his accustomed duty, yet we had at length been impressed with the unpleasant conviction, that a strong predisposition to disease existed among us, and that no very powerful exciting cause was wanting to render it more seriously apparent. Such a conviction at the present crisis was peculiarly disagreeable; for I could not but lament any circumstance tending to weaken the confidence in our strength and resources at a time when more than ordinary exertion was about to be required at our hands.

In the afternoon of the 30th, Lieutenant Hoppner and his party returned on board, having discovered that the inlet in question

communicated with a considerable river, which we jointly named after our mutual and highly-esteemed friend Mr. GIFFORD.

The 1st of August had now arrived; and yet, incredible as it may appear, the ships were as securely confined in the ice as in the middle of winter, except that a pool of water about twice their own length in diameter, was now opened around them. I determined, therefore, notwithstanding the apparent hopelessness of sawing our way through four or five miles of ice, to begin that laborious process; not, indeed, with the hope of cutting a canal sufficiently large to allow the passage of the ships to sea, but with a view to weaken it so much as, in some measure, to assist its disruption whenever any swell should set in upon its margin. On this and the following day, therefore, all the gear was carried down for that purpose, and a large tent pitched for the ships' companies to dine in, the distance being too great to allow them to return on board to their meals. On the 3d, however, we were saved a great deal of unnecessary

labour, by the ice opening out at the crack before mentioned, so that our sawing might now be commenced within a mile of the Fury. After divine service, therefore, all hands were sent from both ships to bring back the tent and tools to the point of Oongalooyat, and the parties were recalled from the walrus-fishery, except a single boat's crew: these also returned on board a few days after, the whole number of sea-horses killed being eight, and one large seal. It is remarkable that all the walruses were males, of which a skeleton was made on board each ship as anatomical specimens. The Hecla's two boats had one day a very narrow escape in assaulting a herd of these animals; for several of them, being wounded, made so fierce an attack on the boats with their tusks, as to stave them in a number of places, by which one was immediately swamped, and the other much damaged. The Fury's boat being fortunately in sight, prevented any further danger; two of the walruses were killed and secured, and the damaged boats light-

ened and towed to the shore, from which they had been several miles distant.

On the 4th our sawing work was commenced, with the usual alacrity on the part of the officers and men, and three hundred and fifty yards of ice were got out before night, its thickness varying from one to four feet, but very irregular on account of the numerous pools and holes. An equal length was accomplished on the following day, though not without excessive fatigue and constant wet to the men, several of whom fell into the water by the ice breaking under them.

On the 5th, the register-thermometer, which had been placed in the ground in the winter, was taken up, though, to our astonishment, the ground above and about it had become nearly as hard and compactly frozen as when we dug the hole to put it down. How this came about we were quite at a loss to determine ; for the earth had been thrown in quite loosely, whereas its present consolidated state implied its having been thoroughly thawed and frozen

again. It occupied two men ten days to extricate it, which, as they approached the thermometer, was done by a chisel and mallet, to avoid injury by jarring. This, however, was not sufficient to prevent mischief, the instrument being so identified with the frozen earth, as to render it impossible to strike the ground near it without communicating the shock to the tubes, two of which were in consequence found to be broken. Thus ended our experiment for ascertaining the temperature of the earth during the winter; an experiment which it would seem, from this attempt, scarcely practicable to make in any satisfactory manner without some apparatus constructed expressly for the purpose.

On the 6th the work was continued as before, and about four hundred yards of ice were sawn through and floated out, leaving now a broad canal, eleven hundred yards in length, leading from the open water towards that formed by the gravelled space. In the course of this day's work one of the seamen of the Hecla fell into the

water by the ice giving way, and very narrowly escaped drowning, as it was not easy for the other people to approach him. He was taken out scarcely sensible; but being immediately conveyed on board the *Fury*, was by care and attention recovered in a few hours.

When the lateness of the season to which the ships had now been detained in the ice is considered, with reference to the probability of the *Fury's* effecting any thing of importance during the short remainder of the present summer, it will not be wondered at that, coupling this consideration with that of the health of my officers and men, I began to entertain doubts whether it would still be prudent to adopt the intended measure of remaining out in the *Fury* as a single ship; whether, in short, under existing circumstances, the probable evil did not far outweigh the possible good. In order to assist my own judgment on this occasion upon one of the most material points, I requested the medical officers of the *Fury*

to furnish me with their opinions 'as to the probable effect that a third winter passed in these regions would produce on the health of the officers, seamen and marines of that ship, taking into consideration every circumstance connected with our situation.' Mr. Edwards's reply, with which in substance that of Mr. Skeock coincided, is here given, as being at once more concise as to expression, and of infinitely greater weight as to opinion, than any remarks I could myself have offered on this subject.

'During the last winter and subsequently, the aspect of the crew of the *Fury* in general, together with the increased number and character of their complaints, strongly indicated that the peculiarity of the climate and service was slowly effecting a serious decay of their constitutional powers. The recent appearance also of several cases of incipient scurvy in the most favourable month of the year, and occurring after a more liberal and continued use of fresh animal food than we

can calculate upon procuring hereafter, are confirmatory proofs of the progression of the evil.

‘With a tolerable prospect of eventual success, other circumstances remaining unchanged, I should yet expect an increase of general debility, with a corresponding degree of sickness, though at the same time confident of our resources being equal to obviate serious consequences. But considering the matter in the other point of view, namely, as a single ship, it assumes a much more important shape. It is not necessary that I should dwell on the altered circumstances in which the crew would then be placed, as they are such as you must long ago have foreseen and weighed : I allude to the increase of labour and exposure resulting from the separation of the vessels, the privation of many salutary occupations, mental and corporeal, attending their union, and, I may add, at this late period of the season, the hopelessness of the success of the ensuing navigation being such as to excite feelings sufficiently lively to counteract

those depressing causes. It is impossible, in fact, to reflect on the subject and not to apprehend a less favourable result than might be expected under the preceding conditions.'

Enclosing to Captain Lyon the replies of the medical gentlemen, I now also requested his opinion whether, under existing circumstances, he still considered it expedient to adopt the measure originally intended, with respect to the separation of the two ships. I had scarcely despatched a letter to this effect, when, at 10 A.M. on the 8th, the ice about the *Fury* began to move, the pools breaking up, and the gravelled canal soon entirely closing. A breeze springing up from the northward at this time, all sail was made upon the ship, and the ice gradually driving out as it detached itself from the shore, the *Fury* got into open water about one P.M. The *Hecla*, however, still remained in the middle of her winter's floe, which, though it moved a little with the rest at first, did not come out of the bay. In the course of the afternoon, finding her

still stationary, I determined to occupy the time in stretching over to the northward, for the purpose of examining the state of the fixed ice at the eastern mouth of the strait; and arriving at its margin by ten P. M., found it attached to both shores from the north-eastern part of Neerlo-Naktoo across to Murray Maxwell Inlet. It was the general opinion that this ice was in a more solid state than at the same time and place the preceding year, but its situation did not, I believe, differ half a mile from what it had then been. As the sun went down nearly in the direction of the strait, we obtained from the mast-head a distinct and extensive view in that quarter, and it is impossible to conceive a more hopeless prospect than this now presented. One vast expanse of level solid ice occupied the whole extent of sea visible to the westward, and the eye wearied itself in vain to discover a single break upon its surface.

Having finished this examination, which at once destroyed every hope I had never ceased to indulge of a passage through the

strait, we returned towards Igloolik to re-join the Hecla. It was not, however, till the morning of the 9th that we observed her to be moving out of the bay ; when at length (for the first time perhaps that such an event ever occurred) she drove to sea in the middle of the floe. Thus at the mercy of the ice, she was carried over the shoals off the south-east point of Igloolik in six and a half fathoms, but was then fortunately drifted into deeper water. The swell on the outside was all that was wanting to break up her icy prison, which separating at seven A.M. finally released her from confinement.

Having soon afterwards received Captain Lyon's answer to my communication, it was necessary for me to come to a final determination on the subject therein alluded to. For various reasons, he advised that the Fury and Hecla should return to England together, as soon as such arrangements respecting the removal of stores and provisions, as I might judge proper to make, should be completed.

Under such circumstances, to which may be added the uncertainty of the Hecla's liberation from the ice to the southward before the close of the season, I no longer considered it prudent or justifiable, upon the slender chance of eventual success now before us, to risk the safety of the officers and men committed to my charge, and whom it was now my first wish to re-conduct in good health to their country and their friends. Having communicated my intentions to the officers and ship's companies, I directed several additions to be made to their ordinary allowance of provisions, particularly in the various anti-scorbutics, which had hitherto been reserved for cases of emergency; and then beating up to our winter station, which, by desire of Mr. Fisher, our Chaplain and Astronomer, I named TURTON BAY, we anchored there in the afternoon in ten fathoms, and immediately commenced our preparations for lightening the Fury. Seven months' provisions, a bower anchor, and a few other stores, were received by the Hecla, some of

her water, before filled as ballast, being started to make room for them; and such other arrangements made as circumstances would permit for improving the stowage of the Fury's hold. The bay was now entirely clear of ice in every part; and so changed was its appearance in the course of the last four-and-twenty hours, that it was scarcely possible to believe it the same place that we had been accustomed daily to look upon for the ten preceding months.

The conveyance and stowage of the stores had scarcely been completed, when some loose ice drifting into the bay with the tide, on the night of the 10th, obliged us hastily to get under weigh and stand out. On the following morning I ran across to the mainland in the Fury, for the purpose of erecting, in compliance with my instructions, a flag-staff fifty-six feet in height, having at its top a ball, made of iron hoops and canvass, ten feet in diameter, and a cylinder buried near its foot, containing a parchment with some account of our visit to this place. In the mean time, I requested Cap-

tain Lyon to stand over to the point of Igloolik, where our walruses had been landed, and to bring off these, as well as our boats and tents remaining there. The ice soon after coming in upon the point, it was not without risk of the Hecla's being dangerously beset, that Captain Lyon succeeded in bringing off every thing but one boat. This was indeed no great loss to us, though a great acquisition to the Esquimaux, for being almost worn out, I had intended to break her up previously to leaving the ice. Besides this, we purposely left our sledges, and a quantity of wood in pieces of a convenient size for bows, spears and paddles, distributing them about in several places, that one or two individuals might not make a prize of the whole.

The Hecla rejoining us on the morning of the 12th, we stood out to the eastward, and finally took our departure from Igloolik. In the forenoon a thick fog came on, which, with a good deal of loose ice drifting about, gave us some trouble in clearing the land; after which, we made

the Calthorpe Islands, the wind being southerly with thick rainy weather. This continued till the following afternoon, when a change of wind soon brought a clearer atmosphere, enabling us to bear up for the main-land, which we made near the three islands called Ooglit, and then ran along it to the southward in a perfectly open sea. We saw here a great many walruses, but no animals of any other kind. In the course of the night the favourable breeze failed us, and, on the morning of the 14th, was succeeded by a southerly wind, the ships being close to another island called Ooglit, about twelve leagues to the S.S.W. of the others. We were here immediately visited by our old acquaintance the Esquimaux, several of whom came off in their canoes in the course of the morning, as if determined to lose no opportunity of profiting by us. Among these was our worthy old friend Nannow, to whom everybody was glad to give something; and, indeed, they all received as many presents as their canoes could safely carry or tow on shore. Their tents, nine in

number, were pitched on the main-land, a little to the northward of Ooglit, at a station they call *Ag-wisse-ō-wik*, of which we had often heard them speak at Igloolik. They now also pointed out to us Amitioke, at the distance of four or five leagues to the southward and westward, which proved to be the same piece of low land that we had taken for it in first coming up this coast. The Esquimaux told us that a number of their younger men were inland in pursuit of deer, and that the rest had abundant supplies of walrus, which animals we saw in considerable numbers about this place.

The failure of the wind was not the only cause of our detention here; the ice, whose margin we had begun to perceive as we approached this part of the coast, now closing in completely with the land, so as to prevent the possibility of our making any farther progress for the present. The closeness of the main body of ice to the land at this time, compared with its position a month earlier the preceding year, was undoubtedly to be attributed to the

prevalence of southerly and easterly winds which we had lately experienced; while those from the opposite quarter could alone drive it off the land. The ice was here very heavy, being covered with large hummocks, reminding us of what we had to encounter in coming up this coast. It was also covered in almost every part with sand and small stones, making its general aspect of a brownish colour, only a few patches of white ice appearing here and there. How these substances had been brought here in such abundance another year's experience of the phenomena of these seas had not taught us to explain; and before we left this coast, we saw many hundred square miles of ice thus covered. In all the intervals between the hummocks were large pools of water, which had in many instances formed deep circular beds, twenty or thirty feet in diameter, in shape like the crater of a volcano. Most of the pools had found their way through to the sea below, and the smallest swell would have broken every floe-piece into numberless masses:

indeed, as it was, there were few to be seen of more than three or four acres in extent.

Being thus detained, I despatched Mr. Ross to Ooglit to observe the meridian altitude, which gave the latitude of its south point $68^{\circ} 23' 58''$, and he found the mineralogical character exactly the same as that of Igloolik. About the middle of the island, which is quite low, are two bone winter huts, conspicuous at some distance to seaward. It was low water at half-past eleven A.M., making the time of high water here on full and change days a quarter past eleven.

We were now for some days all but beset in this neighbourhood, calms or light southerly and easterly breezes constantly prevailing. During this time the main body of ice remained, in most parts, close to the shore; leaving us only a 'hole' of water to work about in, and much nearer to the land than on this shoal and shelving coast was altogether safe for the ships. Notwithstanding this, however, we had soon occasion to observe that they not only kept

their ground, but even drew to the southward, owing, no doubt, to the current before found to set in that direction along the coast.

On the morning of the 22d, being off Amitioke, the ice became more slack along the shore, and a breeze from the northward enabled us to make some progress. I may here take occasion to remark, that, in the course of this summer, we experienced not only an unusual proportion of southerly and easterly winds, but observed also that these were more frequently attended with clear weather than is generally the case; while, on the other hand, a great deal of close thick weather occurred, with breezes from the northern quarter. The present northerly wind had scarcely sprung up an hour before a thick fog came on, frequently obscuring the land from us as we ran along, at the distance of half a mile to a mile and a half. Thus circumstanced, the *Fury* was once in the course of the day placed in a very awkward situation, the water quickly shoaling to six fathoms, and the ice pre-

venting, for a time, the possibility of hauling out. Having at length gained an offing of a couple of miles, we were obliged to make the ships fast to a floe-piece, the ice entirely closing around us.

The ice remained close the whole of the 26th; but we continued as usual to drift generally to the southward, and the next morning, being off Owlitteeweek, were enabled to cast off and make sail, the ice being rather more open than before. Being favoured by a commanding northerly breeze, we ran a considerable distance to the southward, having, however, only just room to sail between the points of the closely packed ice and a flat dangerous shore. A few small low islands were here discovered and added to the chart. In the evening we were once more arrested in our progress and obliged to make fast, being two or three miles short of Point Elizabeth, and within three-quarters of a mile of the shore. On the making of the flood-tide at night, the ships were hurried past the point in seven fathoms, and not having been able

to make fast to the same floe-piece were now separated a mile or two and soon again beset. Without escaping for a moment from our confined situation, and almost without perceiving any motion of the masses of ice among themselves, we had at noon on the 30th drifted down within a mile of a small island, lying near the north-east point of Winter Island, and which I now named after Mr. CRAWFORD. On the 31st the tide took us through between these, the breadth of the passage being three-quarters of a mile, in no less than sixteen fathoms water. We then passed within a dangerous reef of rocks, lying a full mile from the shore, and having numerous heavy masses of grounded ice upon it. After clearing this in a good depth of water, we were, by the evening, carried along shore within a mile of Cape Fisher. Being desirous of seeing whether the Esquimaux had meddled with the tombs of our departed shipmates, I despatched a party on shore over the loose ice, and was glad to find on their return, which was

not accomplished without difficulty,- that both were in good order. Among the specimens of plants which Mr. Ross brought on board were some radishes, onions, and mustard and cress, found at our gardens. The onions had a very pungent smell and taste, and the whole were in that healthy state which, however dwarfish their growth, would have rendered them very acceptable if more abundant. The Esquimaux had certainly visited the island since our departure, as several tin canisters, left for them on a particular spot, had been removed.

Thus had we, in a most singular manner, once more arrived at our old winter-quarters, with scarcely a single successful exertion on our parts towards effecting that object. The distance from Ooglit to our present station was about one hundred and sixty miles along the coast. Of this we had never *sailed* above forty, the rest of the distance having been accomplished, while we were inmoveably beset, by mere drifting. The interval thus employed hav-

ing been barely eight days, gives an average drift to the southward of above fifteen miles per day.

At daylight, on the 1st of September, we found ourselves within three or four hundred yards of the rocks on the eastern side of Winter Island, the soundings having gradually decreased to eleven fathoms. Had it remained dark an hour longer, the *Fury* would in all probability have gone on shore; but happily the ice was slack enough to allow us to warp clear of danger soon after day-break. The *Hecla* had in the mean time been drifted round Cape Fisher, and several miles to the westward, towards Lyon Inlet, in which direction the *Fury* was also carried in the afternoon. The wind now setting in easterly, both ships drove with the ice up the inlet, and on the 4th were abreast of Safety Cove, though fortunately on the western side, clear of the dangers of the Bay of Shoals. A light breeze then springing up from the north-west, we again began to move down the inlet; and on the evening of the 6th,

after making a little progress with the sails in the course of the last two days, were once more met by an easterly breeze off Cape Edwards, the ice being still as closely packed as possible. The young ice also began at times to annoy us, by forming to a considerable thickness at night, so as to cement the larger masses strongly together. The weather now became chilly immediately after sunset, and we considered it rather a premature decrease of temperature in this latitude, when the thermometer was observed to fall to 24° on the morning of the 31st of August. A very unusual deposition of dew took place every evening about this season, immediately after the sun had set, and was in an hour or two converted into hoar frost.

In the afternoon of the 6th, I was much pained at being informed by telegraph from the Hecla, that Mr. Fife, Greenland Master of that ship, had just expired, an event which for some days past there had been but too much reason to apprehend; the scurvy having within the last three

weeks continued to increase considerably upon him. It is proper for me, however, both in justice to the medical officers under whose skilful and humane care he was placed, and to the means with which we were in this way so liberally supplied, to state, that during a part of that time Mr. Fife had taken so great a dislike to the various anti-scorbutics which were administered to him, that he could seldom be induced to use any of them. The disease, in consequence, reduced him to a state of extreme debility, which at length carried him off almost without pain. The Hecla being at the time closely beset, and in a situation of great danger among the shoals off Winter Island, Captain Lyon caused the remains of the deceased to be committed to the sea with all the solemnity which circumstances would permit. I cannot close this melancholy notice without expressing my most sincere regret, to which I may venture to add that of Captain Lyon and the other officers, for the loss of this very deserving individual, whose qualities as a seaman and

navigator, had it pleased God to spare his life, would have rendered him an ornament to the naval service, into which he was to have been admitted as a master on the return of the ships to England. Mr. Crawford, the mate of the Fury, was appointed, for the present, to act as master of the Hecla in the room of Mr. Fife.

In the night of the 6th, the ships, which had before nearly closed each other, were again separated to the distance of several miles, though no motion was perceptible in the masses of ice about them. The Hecla was now carried towards Winter Island, and the Fury up Lyon Inlet, so that on the 10th, we had reached the islands off Five-hawser Bay, within three-quarters of a mile, where the Hecla was barely visible from the mast-head. On the evening of the 11th, however, the wind at length began to freshen from the north-west, when the ice immediately commenced driving down the inlet at the rate of a mile an hour, carrying the Fury with it, and within half a mile of the rocks, the whole way

down to Cape Martineau, but keeping her in deep water. In the meantime the Hecla had been swept into much more dangerous situations, passing along the east and south sides of Winter Island; and after driving nearly up to Five-hawser Bay, being carried near some dangerous shoals about Cape Edwards, where Captain Lyon expected every other tide that she would take the ground. Indeed for the last ten or twelve days the situation of the Hecla had been one of imminent danger, and every exertion to remove her from it had proved unavailing. From this time, however, the ice continued to drive to the southward, and, by some means or other, the ships once more closed each other. It was now observable, as on a former occasion in this neighbourhood, that the ice did not carry the ships in the direction opposite to the wind, but much more towards Southampton Island; so that on the 14th we were once more off Fife Rock, and had, by great exertions in warping, nearly rejoined the Hecla. We now also observed a dark water sky to the east-

ward, which assured us that a clear sea could be at no great distance in that direction. On the following day, when the ships had closed each other within a mile, we could see the clear water from the mast-head, and the Hecla could now have been easily extricated. Such, however, are the sudden changes that take place in this precarious navigation, that not long afterwards the Fury was quite at liberty to sail out of the ice, while the Hecla was now, in her turn, so immoveably fast set, and even cemented between several very heavy masses, that no power that could be applied was sufficient to move her an inch. In this situation she remained all the 16th, without our being able to afford her any assistance; and the frost being now rather severe at night, we began to consider it not improbable that we might yet be detained for another winter. We were perhaps, indeed, indebted for our escape to a strong westerly breeze, which blew for several hours on the 17th, when, the ice being sufficiently close to allow our men to walk to the assistance

of the Hecla, we succeeded, after seven hours hard labour, in forcing her into clear water, when all sail was made to the eastward, and our course shaped for the Trinity Islands in a perfectly open sea.

We thus finally made our escape from the ice after having been almost immovably beset in it for twenty-four days out of the last twenty-six, in the course of which time the ships had been taken over no less than one hundred and forty leagues of ground, generally very close to the shore, and always unable to do any thing towards effecting their escape from danger. When it is considered, that to have taken the ground in this situation, with strong high tides keeping the ice in constant motion, must have almost involved the certain loss of the ships, and without the possibility of one offering assistance to the other, we cannot but consider this as one of the most providential escapes it has ever been our lot to experience.

The wind still favouring us after our leaving the ice, we made the land near the

Trinity Islands on the evening of the 18th, and passed Salisbury Island the following day. Meeting with no obstruction whatever, we ran with a favourable breeze down Hudson's Strait, and at noon on the 23rd had passed Button's Isles, from which we took our final departure. Icebergs of large dimensions occurred, from about the seventy-third degree of longitude downwards to the entrance of the strait, and we remarked, that below the sixty-third degree of latitude the land was still comparatively clear of snow.

A solan goose was seen on this and the preceding day, and these birds became more numerous as we approached the Orkneys, which we made on the morning of Oct. 9th, the wind being moderate from the southward. It can scarcely, perhaps, be imagined by those who have not been similarly situated, with what eager interest one or two vessels were this day descried by us, being the first trace of civilized man that we had seen for the space of seven-and-twenty months. The breeze in-

creasing to a fresh gale from the southward in the course of the night, with a heavy sea from the same quarter, rendering it impossible for us to make any progress in that direction, I determined to put into Lerwick in the Shetlands Islands, to procure refreshments, and await a change in our favour. We accordingly bore up for that harbour early on the morning of the 10th, and at thirty minutes past ten A.M. anchored there, where we were immediately visited by a great number of the inhabitants, anxious to greet us on our return to our native country.

I feel it utterly impossible adequately to express the kindness and attention we received for the three or four days that we were detained in Bressay Sound, by a continuance of unfavourable winds. On the first information of our arrival the bells of Lerwick were set ringing, the inhabitants flocked from every part of the country to express their joy at our unexpected return, and the town was at night illuminated, as if each individual had a

brother or a son among us. On the 12th, being Sunday, the officers and men of both ships attended divine service on shore, when the worthy minister, the Reverend Mr. Menzies *, who was before well known to many among us, offered up, in the most solemn and impressive manner, a thanksgiving for our safe return; at the same time calling upon us, with great earnestness, never to forget what we owed to Him who had been 'about our path, and about our bed, and who spieth out all our ways.' The peculiarity of the circumstances under which we had joined the congregation, the warmth of feeling exhibited by every person assembled within the sacred walls, together with the affectionate energy of the preacher, combined to produce an effect of which words can convey but little idea, but which will not

* This faithful minister, and most estimable member of society, has since gone to receive the reward of his labours; but he will long live in our grateful remembrance.

easily be effaced from the minds of those who were present on this affecting occasion.

On the 13th, a breeze springing up from the northward, we took leave of our kind and hospitable friends, deeply sensible of the cordial and affectionate reception we had experienced ; and being still favoured by the wind, were abreast of Buchaness the following evening. It was my intention to have put into Leith, in order to procure anchors and pilots previously to venturing upon the English coast, but the wind breaking us off on the morning of the 15th, prevented our approaching that part of the coast, and we continued our course to the southward. On the 16th, being off Whitby, I went on shore there, accompanied by Mr. Fisher, the astronomer, and after receiving the cordial greetings of a great number of the worthy inhabitants of Whitby, who had assembled to meet us on landing, set off for London, and arrived at the Admiralty on the morning of the 18th.

The ships, after touching at the Humber for pilots, arrived in the River Thames shortly afterwards, and were paid off at Deptford on the 14th of November.

THIRD VOYAGE
FOR THE
DISCOVERY
OF A
NORTH-WEST PASSAGE.



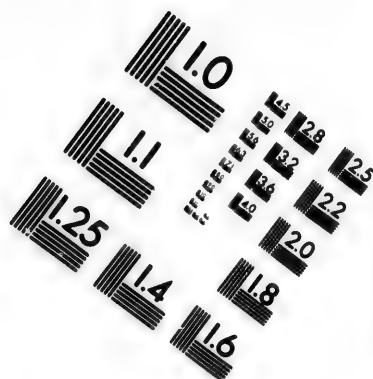
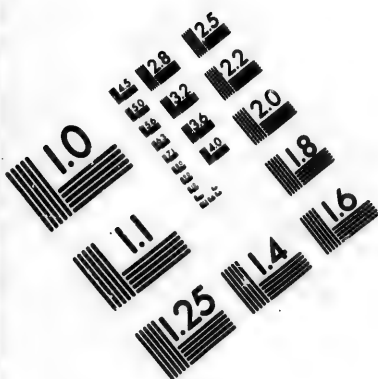
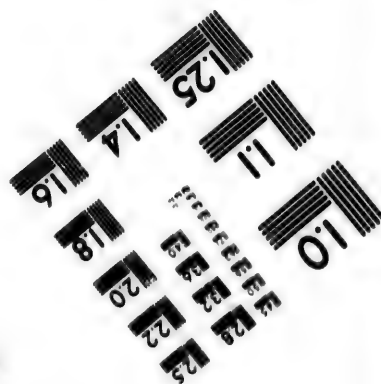
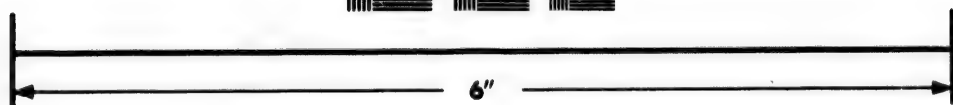
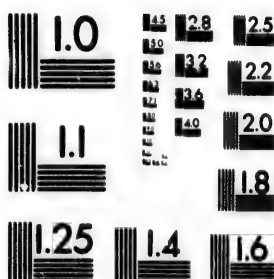


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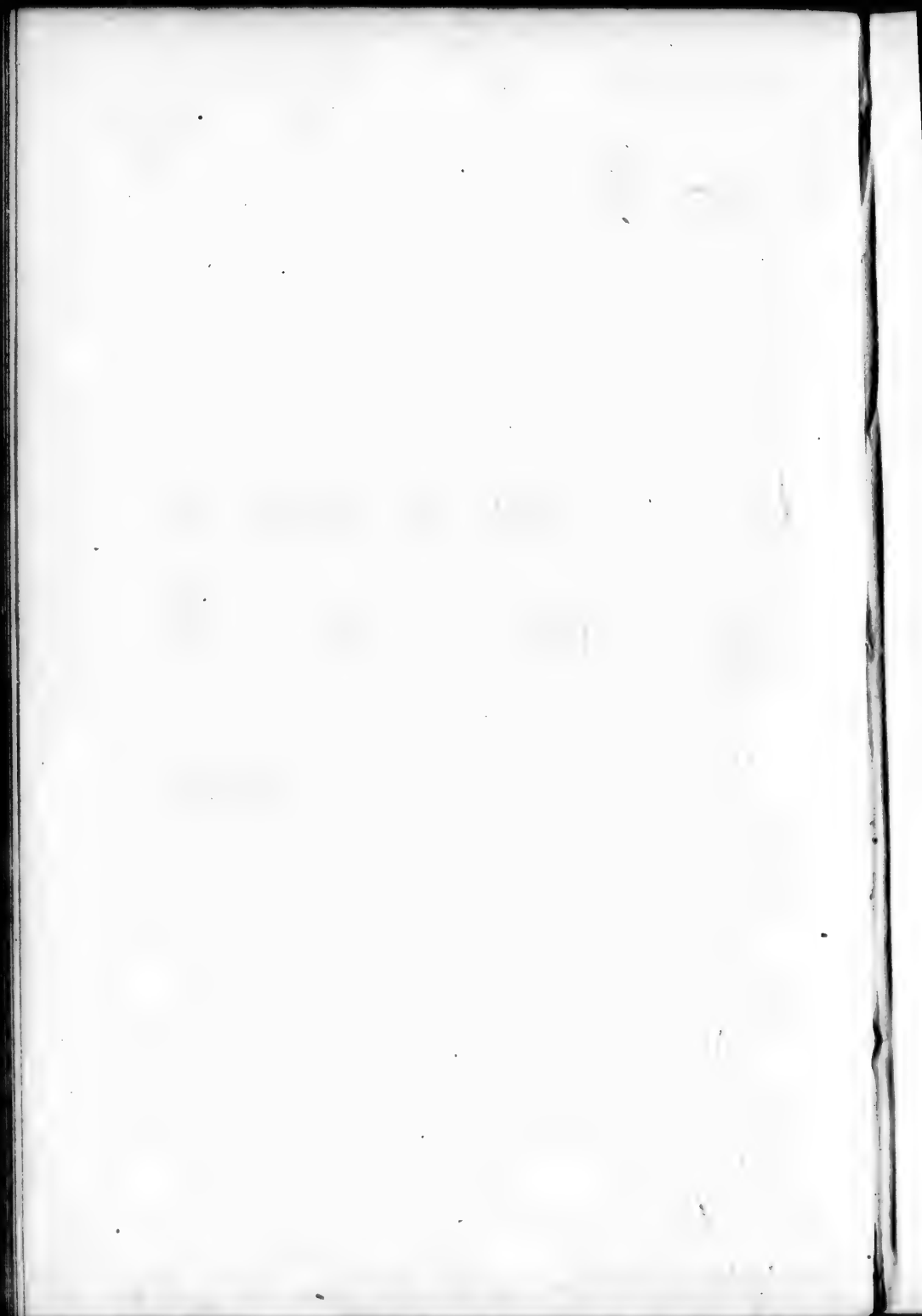


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INTRODUCTION.

NOTWITHSTANDING the want of success of the late Expedition to the Polar Seas, it was resolved to make another attempt to effect a passage by sea, between the Atlantic and Pacific Oceans. The chief attentions in the equipment of the present expedition consisted in the placing of Sylvester's warming stove in the very bottom of the ship's hold, in substituting a small quantity of salt beef for a part of the pork, and in furnishing a much larger supply of newly corned beef. Preserved carrots and parsnips, salmon, cream, pickles of onions, beet root, cabbage, and to make the most of our stowage, *split* peas, instead of whole ones, were supplied. A small quantity of beef pemmican, made by pounding the meat with a certain portion of fat, as described by Captain Franklin, was also furnished.

To the officers, seamen, and marines, my best acknowledgments are once more due for the zealous support I have at all times received from them in the course of this service ; and I am happy to repeat my conviction that, had it depended on their conduct and exertions, our most sanguine expectations would, long ere this, have been crowned with complete success.

CHAPTER I.

Passage to the Whale-fish Islands, and Removal of Stores from the Transport—Enter the Ice in Baffin's Bay—Difficulties of Penetrating to the Westward—Quit the Ice in Baffin's Bay—Remarks on the Obstructions encountered by the Ships, and on the Severity of the Season.

THE equipment of the *Hecla* and *Fury*, and the loading of the *William Harris* transport, being completed, we began to move down the river from Deptford on the 8th of May, 1824, and on the 10th, by the assistance of the steam-boat, the three ships had reached Northfleet, where they received their powder and their ordnance stores. Two days were here employed in fixing, under the superintendence of Mr. Barlow and Lieutenant Foster, the plate invented by the former gentleman for correcting the deviation of the compass, produced by the at-

traction of the ships' iron ; and the continuance of strong easterly winds prevented our getting to the Nore till the 16th. During our stay at Northfleet, the ships were visited by Viscount Melville, and the other Lords Commissioners of the Admiralty, who were pleased to approve of our general equipment and arrangements.

During our passage across the Atlantic in June, and afterwards on our way up Davis's Strait, we threw overboard daily a strong copper cylinder, containing the usual papers, giving an account of our situation. We also took every opportunity afforded by light winds to try the temperature of the sea at different depths, as compared with that at the surface.

I now determined, as the quickest and most secure mode of clearing the transport, to anchor at the Whale-fish Islands, rather than incur the risk of hampering and damaging her among the ice. Fresh gales and thick weather, however, prevented our doing so till the 26th, when we anchored at eight A.M., in seventeen fathoms, mooring

the ships by hawsers to the rocks, and then immediately commenced our work. In the mean time, the observatory and instruments were landed on a small island, called by the Danes Boat Island, where Lieutenant Foster and myself carried on the magnetic and other observations, during the stay of the Expedition at this anchorage, of which a survey was also made.

Early on the morning of the 3d of July, the whole of our stores being removed, and Lieutenant Pritchard having received his orders, together with our despatches and letters for England, the *William Harris* weighed with a light wind from the northward, and was towed out to sea by our boats. The day proving calm, we employed it in swinging the *Hecla*, in order to obtain the amount of the deviation of the magnetic needle, and to fix afresh the iron-plate for correcting it. On the following morning, the wind being southerly, the pilots came on board, and the *Hecla* weighed to run through the north passage; in doing which, she grounded on a rock lying directly

in the channel, and having only thirteen feet upon it at low water, which our sounding boats had missed, and of which the pilot was ignorant. The tide being that of ebb, we were unable to heave the ship off immediately, and at low water she had sewed three feet forward. It was not till half-past one, P.M., that she floated, when it became necessary to drop her down between the rock and the shore with hawsers; after which we made sail, and, being soon after joined by the *Fury*, which came out by the other channel, we stood round the islands to the northwards. This rock was not the only one found by our boats which may prove dangerous to ships going in and out of this harbour, and with which our pilots were unacquainted. Another was discovered by Mr. Head, about one-third of the distance across from Kron Prins Island to the opposite shore of the S.E. entrance, and has not more than eighteen feet water on it at low tide; it lies very much in the way of ships coming in at that channel, which is the most commonly used.

Light northerly winds, together with the dull sailing of our now deeply laden ships, prevented our making much progress for several days, and kept us in the neighbourhood of numerous ice-bergs, which it is dangerous to approach when there is any swell. We counted from the deck, at one time, no less than one hundred and three of these immense bodies, some of them from one to two hundred feet in height * above the sea; and it was necessary, in one or two instances, to tow the ships clear of them with the boats. We had occasion, about this time, to remark the more than usual frequency of fogs with a northerly wind, a circumstance from which the whalers are accustomed to augur a considerable extent of open water in that direction.

The ice soon beginning to close around us, our progress became so slow that, on the 17th, we saw a ship at the margin of

* We had occasionally the means of guessing, with tolerable precision, the height of the ice-bergs, by the Fury passing close to them.

the 'pack,' and two more on the following day. We supposed these to be whalers, which, after trying to cross the ice to the northward, had returned to make the attempt in the present latitude; a supposition which our subsequent difficulties served to strengthen. From this time, indeed, the obstructions from the quantity, magnitude, and closeness of the ice, were such as to keep our people almost constantly employed in heaving, warping, or sawing through it; and yet with so little success, that, at the close of the month of July, we had only penetrated seventy miles to the westward, or to the longitude of about $62^{\circ} 10'$. Here, while closely beset, on the 1st of August, we encountered a hard gale from the south-east, which, pressing the ice together in every direction, by mass overlaying mass for hours together, the *Hecla* received several very awkward 'nips,' and was once fairly laid on her broadside by a strain which must inevitably have crushed a vessel of ordinary strength. In such cases, the ice is forced under a ship's bottom, on one

side, and on the other up her side, both powers thus acting in such a manner as to bring her on her 'beam-ends.' This is, in fact, the most favourable manner in which a ship can receive the pressure, and would perhaps only occur with ice comparatively not very heavy, though sufficiently so, it is said, to have run completely over a ship in some extreme and fatal cases. With ice of still more formidable dimensions, a vessel would, probably, by an equal degree of pressure, be absolutely crushed, in consequence of the increased difficulty of sinking it on one side, and causing it to rise on the other*.

Sept. 9th.—I shall, doubtless, be readily excused for not having entered in this journal a detailed narrative of the obstacles

* It has more than once occurred to me, under such stress of materials as this, that independently of the absolute strength of our ships, the circumstance of their being *quite full*, and stowed with minute attention to closeness in every part of their holds, might have contributed something towards their withstanding such enormous pressure.

we met with, and of the unwearied exertions of the officers and men to overcome them, daring the tedious eight weeks employed in crossing this barrier. I have avoided this detail, because, while it might appear an endeavour to magnify ordinary difficulties, which it is our business to overcome rather than to discuss, I am convinced that no description of mine, nor even the minute formality of the log-book, could convey an adequate idea of the truth. The strain we constantly had occasion to heave on the hawsers, as springs to force the ships through the ice, was such as, perhaps, no ships ever before attempted; and by means of Phillips's invaluable capstan*, we often

* I cannot omit this opportunity of expressing my admiration of this ingenious contrivance in every trial to which we put it in the course of this voyage. By the perfect facility with which the machinery is made to act, or the contrary, it is easily altered and applied to any purpose, in ten or fifteen seconds; and the slowness and consequent steadiness of the power, render it infinitely less trying to the hawsers than any purchase we were before enabled to adopt on board a ship.

separated floes of such magnitude as must otherwise have baffled every effort. In doing this, it was next to impossible to avoid exposing the men to very great risk, from the frequent breaking of the hawsers. On one occasion three of the Hecla's seamen were knocked down as instantaneously as by a gun-shot, by the sudden flying out of an anchor, and a marine of the Fury suffered in a similar manner when working at the capstan; but providentially they all escaped with severe contusions. A more serious accident occurred in the breaking of the spindle of the Fury's windlass, depriving her of the use of the windlass-end during the rest of the season.

The constant besetment of the ships, and our daily observations for latitude and longitude, afforded a favourable opportunity for ascertaining precisely the set of any currents by which the whole body of ice might be actuated. By attending very carefully to all the circumstances, it was evident that a daily set to the southward obtained, when the wind was northerly, differing in

amount from two or three, to eight or ten miles per day, according to the strength of the breeze; but a northerly current was equally apparent, and fully to the same amount, whenever the wind blew from the southward. A circumstance more remarkable than these, however, forced itself strongly upon my notice at this time, which was, that a *westerly* set was very frequently apparent, even against a fresh breeze blowing from that quarter. I mention the circumstance in this place, because I may hereafter have to offer a remark or two on this fact, in connection with some others of a similar nature noticed elsewhere.

With respect to the dimensions of the ice through which we had now scrambled our way, principally by warping and towing a distance of between three and four hundred miles, I remarked that it for the most part increased, as well in the thickness as the extent of the floes, as we advanced westward about the parallel of 71° . During our subsequent progress to the north, we also met with some of enormous dimensions,

several of the floes, to which we applied our hawsers and the power of the improved capstan, being at their margin more than twenty feet above the level of the sea; and over some of these we could not see from the mast-head. Upon the whole, however, the magnitude of the ice became somewhat less towards the north-west, and within thirty miles of that margin the masses were comparatively small, and their thickness much diminished. Bergs were in sight during the whole passage, but they were more numerous towards the middle of the 'pack,' and rather the most so to the southward.

CHAPTER II.

Enter Sir James Lancaster's Sound—Land at Cape Warrender—Meet with young ice—Ships beset and carried near the shore—Driven back to Navy-board Inlet—Run to the westward, and enter Prince Regent's Inlet—Arrival at Port Bowen.

ALL our past obstacles were in a moment forgotten, when we once more saw an open sea before us ; but it must be confessed that it was not so easy to forget that the middle of September was already near at hand, without having brought us even to the entrance of Sir James Lancaster's Sound. That not a moment might be lost, however, in pushing to the westward, a press of canvass was crowded, and being happily favoured with an easterly breeze, on the morning of Sept. 10th we caught a glimpse of the high bold land on the north

side of the magnificent inlet up which our course was once more to be directed. From the time of our leaving the main body of ice, we met with none of any kind, and the entrance to the Sound was, as usual, entirely free from it, except here and there a berg, floating about in that solitary grandeur, of which these enormous masses, when occurring in the midst of an extensive sea, are calculated to convey so sublime an idea.

On the morning of the 12th we were once more favoured with a breeze from the eastward, but so light and unsteady, that our progress was vexatiously slow; and on the 13th, when within seven leagues of Cape York, we had the mortification to perceive the sea a-head of us covered with young ice, the thermometer having, for two days past, ranged only from 18° to 20° . On reaching it we had, as usual, recourse to 'sallying,' breaking it with boats a-head, and various other expedients, all alike ineffectual without a fresh and free breeze furnishing a constant impetus; so that after

seven or eight hours of unsuccessful labour in this way, we were obliged to remain as we were, fairly and immovably beset.

It now appeared high time to determine as to the propriety of still continuing our efforts to push to the westward, or of returning to England, according to my instructions on that head, under particular circumstances. As the crossing of the ice in Baffin's Bay had of itself unexpectedly occupied nearly the whole of one season, it could not, of course, be considered that the attempt to penetrate to the westward, in the manner directed by their Lordships, had as yet been made, nor could it, indeed, be made during the present year. I could not, therefore, have a moment's hesitation as to the propriety of pushing on as far as the present season would permit, and then giving a fair trial during the whole of the next summer to the route I was directed by my instructions to pursue. In order, however, to confirm my own opinion on this subject, I requested to be furnished with that of Captain Hoppner; and finding

that his views entirely agreed with my own, I resolved still to pursue our object by all the means in our power.

The next breeze sprung up from the westward, drawing also from the southward, at times, out of Prince Regent's Inlet, and for three days we were struggling with the young ice to little or no purpose, now and then gaining half a mile of ground to windward in a little 'hole' of open water, then losing as much by the necessity of bearing up, or wearing, (for the ice was too strong to allow us to tack,) sallying from morning to night with all hands, and with the watch at night, two boats constantly under the bows; and after all, rather losing ground than otherwise, while the young ice was every hour increasing in thickness.

On the 17th, when we had driven back rather to the eastward of Admiralty Inlet, an easterly breeze again enabled us to make some progress. The sea was now, for the most part, covered with young ice, which had become so thick as to look white throughout its whole extent. The

holes of water could now, therefore, be more distinctly seen, and by taking advantage of these, we succeeded in making a few miles of westing, the 'leads' taking us more in-shore, towards Admiralty Inlet, than before. Towards sun-set we became more and more hampered, and were eventually beset during the night. A breeze sprung up from the westward, which increasing to a fresh gale, we found ourselves at daylight far to the eastward, and also within two miles of the land, near a long low point, which, on the former voyages, had not been seen. The sea was covered with ice between us and the shore, all of this year's formation, but now of considerable thickness and formidable appearance. The wind continuing strong, the whole body was constantly pressed in upon the land, bearing the ships along with it, and doubling one sheet over another, sometimes to a hundred thicknesses. We quickly shoaled the water from seventy to forty fathoms, the latter depth occurring about a mile from the beach; and after this

we drifted but little, the ice being blocked up between the point and a high perpendicular berg lying a-ground off it.

The sails being furled, and the top-gallant yards got down, we now considered ourselves fortunate in our situation; for had we been only a quarter of a mile further out, we should have been within the influence of a current that was there sweeping the whole body of ice to the eastward, at the rate of a mile and a half an hour. Indeed, at times, this current was disposed to approach us still nearer, carrying away pieces of ice close to our quarter; but by means of long hawsers, secured to the heaviest and most compact of the small floes in-shore of us, we contrived to hold on. Under such circumstances, it evidently became expedient to endeavour, by sawing, to get the ships as close in-shore as possible, so as to secure them either to grounded ice, or by anchoring within the shelter of a bay, at no great distance inside of us; for it now seemed not unlikely that winter was about to put a premature stop to all further

operations at sea for this season. At all events it was necessary to consult the immediate safety of the ships, and to keep them from being drifted back to the eastward. I, therefore, gave orders for endeavouring to get the ships in towards the bay, by cutting through what level floes still remained. At the same time an officer was despatched to examine the shore, which was found safe, with regular soundings in every part. So strong had been the pressure while the ice was forcing in upon us, that on the 20th, after liberating the Hecla on one side, she was as firmly cemented to it on the other, as after a winter's formation, and we could only clear her by heavy and repeated 'sallying.' After cutting in two or three hundred yards, while the people were at dinner on the 21st, our canal closed, by the external pressure coming upon the parts which we had weakened, and in a few minutes the whole was once more in motion, or, as the seamen not inaptly expressed it, 'alive,' mass doubling under mass, and raising those which were

uppermost to a considerable height. The ice thus pressed together was now about ten feet in thickness in some places, and, on an average, not less than four or five, so that while thus forced in upon a ship, although soft in itself, it caused her to tremble exceedingly; a sensation, indeed, commonly experienced in forcing through young ice of considerable thickness. We were now once more obliged to be quiet spectators of what was going on around us, having, with extreme difficulty, succeeded in saving most of our tools that were lying on the ice when the squeezing suddenly began. Towards evening we made fast to a stationary floe, at the distance of one mile from the beach, in eighteen fathoms, where we remained tolerably quiet for the night, the ice outside of us, and as far as we could see, setting constantly, at a great rate, to the eastward. Some of our gentlemen, who had landed in the course of the day, and who had to scramble their way on board over the ice in motion, described the bay as deeper than it appeared from

the offing. Lieutenant Ross 'found, about two-thirds up a small peaked insulated hill of limestone, between three and four hundred feet above the level of the sea, several pieces of coal, which he found to burn with a clear bright flame, crackling much, and throwing off slaty splinters.'

Hares' burrows were numerous on this hill; Lieutenant Ross saw two of these animals, one of which he killed. A fox was also observed, in its summer dress; and these, with a pair of ravens, some wingless ducks, and several snow-buntings, were all the animals noticed at this place.

A sudden motion of the ice, on the morning of the 22d, occasioned by a change of wind to the S.E., threatened to carry us directly off the land. It was now, more than ever, desirable to hold on, as this breeze was likely to clear the shore, and at the same time to give us a run to the westward. Hawsers were, therefore, run out to the land-ice, composed of some heavy masses, almost on the beach. With the Hecla this succeeded, but the Fury being

much farther from the shore, soon began to move out with the whole body of ice, which, carrying her close to the large berg off the point, swept her round the latter, where, after great exertion, Captain Hoppner succeeded in getting clear, and then made sail to beat back to us. In the mean time the strain put upon the Hecla's hawsers being too great for them, they snapped, one after another, and a bower-anchor was let go, as a last resource. It was one of Hawkins's, with the double fluke, and immediately brought up, not merely the ship, but a large floe of young ice, which had just broken our stream-cable. All hands were sent upon the floe to cut it up a-head, and the whole operation was a novel, and at times a fearful one; for the ice, being weakened by the cutting, would suddenly gather fresh way astern, carrying men and tools with it, while the chain-cable continued to plough through it in a manner which gave one the idea of something alive, and continually renewing its attacks. The anchor held surprisingly, and after this tremendous strain had been

put upon it for above an hour, we had fairly cut the floe in two, and the ship was riding in clear water about half a mile from the shore.

I was now in hopes we should have made some progress, for a large channel of clear water was left open in-shore; a breeze blew off the land, and the temperature of the atmosphere had again risen considerably. We had not sailed five miles, however, when a westerly wind took us a-back, and a most dangerous swell set directly upon the shore, obliging me immediately to stand off the land; and the Fury being still to the eastward of the point, I ran round it, in order to rejoin her before sunset. The current was here setting very fast to the eastward, not less, I think, in some places, than two miles an hour, so that, even in a clear sea, we had little chance of stemming it, much less beset as we were in young ice during an unusually dark night of nine or ten hours' duration, with a heavy fall of snow. The consequence was, that when we made the land on the morning of the

23d, we had been drifted the incredible distance of eight or nine leagues during the night, finding ourselves off the Wollaston Islands at the entrance of Navy Board Inlet. We stood in under the islands to look for anchorage during the night, but the water being everywhere too deep close to the shore, we made fast at sunset to some very heavy ice upon a point, which we took to be the main-land, but which Captain Hoppner afterwards found to be upon one of the islands, which are at least four in number.

After midnight on the 27th the wind began to moderate, and by degrees also drew more to the southward than before. At daylight, therefore, we found ourselves seven or eight miles from the land; but no ice was in sight, except the 'sludge,' of honey-like consistence, with which almost the whole sea was covered. A strong blink, extending along the eastern horizon, pointed out the position of the main body of ice, which was farther distant from the eastern shore of the inlet than I ever saw

it. Being assisted by a fine working breeze, which, at the same time, prevented the formation of any more ice to obstruct us, we made considerable progress along the land, and at noon were nearly a-breast of Jackson Inlet, which we now saw to be considerably larger than our distant view of it on the former voyage had led us to suppose. We found also that what at a distance appeared an island in the entrance, was, in reality, a dark-looking rocky hill, on the south side. A few more tacks brought us to the entrance of Port Bowen, which, for two or three days past, I had determined to make our wintering-place, if, as there was but little reason to expect, we should be so fortunate as to push the ships thus far. My reasons for coming to this determination, in which Captain Hoppner's opinion also served to confirm me, will be sufficiently gathered from the operations of the preceding fortnight, which convinced me that the precarious chance of making a few miles more progress could no longer be suffered to weigh against the

evident risk now attending further attempts at navigation : a risk not confined to the mere exposure of the ships to imminent danger, or the hazard of being shut out of a winter harbour, but to one which, I may be permitted to say, we all dreaded as much as these,—the too obvious probability of our once more being driven back to the eastward, should we again become hampered in the young ice. Joining to this the additional consideration that no known place of security existed to the southward on this coast, I had not the smallest hesitation in availing myself of the present opportunity to get the ships into harbour. Beating up, therefore, to Port Bowen, we found it filled with 'old' and 'hummocky' ice, attached to the shores on both sides, as low down as about three-quarters of a mile below Stoney Island. Here we made fast in sixty-two fathoms water, running our hawsers far in upon the ice, in case of its breaking off at the margin.

On entering Port Bowen, I was forcibly struck with the circumstance of the cliffs

on the south side of the harbour being, in many places, covered with a layer of blue transparent-looking ice, occasioned undoubtedly by the snow partially thawing there, and then being arrested by the frost, and presenting a feature very indicative of the late cold summer. The same thing was observed on all the land to which we made a near approach on the south side of Barrow's Strait this season, especially about Cape York and Eardley Bay; but as we had never been close to these parts of the shore in 1819, it did not occur to me as anything new, or worthy of notice. At Port Bowen, however, which in that year was closely examined, I am quite certain that no such thing was to be seen, even in the month of August, the cliffs being then quite clear of snow, except here and there a patch of drift.

✱ Late as we had this year been (about the middle of October) in reaching Sir James Lancaster's Sound, there would still have been time for a ship engaged in the whale-fishery to have reaped a tolerable harvest,

as we met with a number of whales in every part of it, and even as far as the entrance of Port Bowen. The number registered altogether in our journals is between twenty and thirty, but I have no doubt that many more than these were seen, and that a ship expressly on the look-out for them would have found full occupation for her boats. Several which came near us were of large and 'payable' dimensions. I confess, however, that had I been *within* the Sound, in a whaler, towards the close of so unfavourable a season as this, with the young ice forming so rapidly on the whole extent of the sea, I should not have been disposed to persevere in the fishery under circumstances so precarious, and to a ship unprepared for a winter involving such evident risk. It is probable, however, that on the *outside* the formation of young ice would have been much retarded by the swell; and I am inclined to believe that a season so unfavourable as this will be found of rare occurrence.

We observed a great many narwhals in different parts of Barrow's Strait, and a few walruses, and should perhaps have seen many more of both, but for the continual presence of the young ice.

CHAPTER III.

Winter Arrangements—Improvements in Warming and Ventilating the Ships—Masquerades adopted as an Amusement to the Men—Establishment of Schools—Astronomical Observations—Meteorological Phenomena.

Oct.—Our present winter-arrangements so closely resembled, in general, those before adopted, that a fresh description of them here would prove little more than a repetition of that already contained in the narratives of our former voyages. On each succeeding occasion, however, some improvements were made which, for the benefit of those hereafter engaged in similar enterprises, it may be proper to record. For all those whose lot it may be to succeed us, sooner or later, in these inhospitable regions, may be assured that it is only by

rigid and unremitted attention to these and numberless other 'little things,' that they can hope to enjoy the good state of health which, under the divine blessing, it has always been our happiness, in so extraordinary a degree, to experience.

In the description I shall offer of the appearances of nature, and of the various occurrences, during this winter, I know not how I can do better than pursue a method similar to that heretofore practised, by confining myself rather to the pointing out of any *difference* observed in them now and formerly, than by entering on a fresh description of the actual phenomena. To those who read, as well as to those who describe, the account of a winter passed in these regions can no longer be expected to afford the interest of novelty it once possessed; more especially in a station already delineated with tolerable geographical precision on our maps, and thus, as it were, brought near to our firesides at home. Independently, indeed, of this circumstance, it is hard to conceive any one thing more like another

than two winters passed in the higher latitudes of the Polar regions, except when variety happens to be afforded by intercourse with some other branch of 'the whole family of man.' Winter after winter, nature here assumes an aspect so much alike, that cursory observation can scarcely detect a single feature of variety. The winter of more temperate climates, and even in some of no slight severity, is occasionally diversified by a thaw, which at once gives variety and comparative cheerfulness to the prospect. But here, when once the earth is covered, all is dreary, monotonous whiteness—not merely for days or weeks, but for more than half a year together. Whichever way the eye is turned, it meets a picture calculated to impress upon the mind an idea of inanimate stillness, of that motionless torpor with which our feelings have nothing congenial; of anything, in short, but life. In the very silence there is a deadness with which a human spectator appears *out of keeping*. The presence of man seems an intrusion on the dreary soli-

tude of this wintry desert, which even its native animals have for awhile forsaken.

As this general description of the aspect of nature would suit alike each winter we have passed in the ice, so also, with very little variation, might our limited catalogue of occurrences and adventures serve equally for any one of those seasons. Creatures of circumstance, we act and feel as we did before on every like occasion, and as others will probably do after us in the same situation. Whatever difference time or events may have wrought in individual feelings, and however different the occupations which those feelings may have suggested, they are not such as, without impertinence, can be intruded upon others; with these 'the stranger intermeddleth not.' I am persuaded, therefore, that I shall be excused in sparing the dulness of another winter's diary, and confining myself exclusively to those facts which appear to possess any scientific interest, to the few incidents which *did* diversify our confinement, and to such remarks as may contribute to the health and comfort

of any future sojourners in these dreary regions.

It may well be supposed that, in this climate, the principal desideratum which art is called upon to furnish for the promotion of health, is warmth, as well in the external air as in the inhabited apartments. Exposure to a cold atmosphere, *when the body is well clothed*, produces no bad effect whatever beyond a frost-bitten cheek, nose, or finger. As for any injury to healthy lungs from the breathing of cold air, or from sudden changes from this into a warm atmosphere, or *vice versâ*, it may with much confidence be asserted that, with due attention to external clothing, there is nothing in this respect to be apprehended. This inference, at least, would appear legitimate, from the fact that our crews, consisting of one hundred and twenty persons, have for four winters been constantly undergoing, for months together, a change of from eighty to a hundred degrees of temperature, in the space of time required for opening two doors, (perhaps less than half a minute,) without incurring

any pulmonary complaints at all. Nor is a covering for the mouth at all necessary under these circumstances, though to most persons very conducive to comfort; for some individuals, from extreme dislike to the condensation and freezing of the breath about the 'comforter' generally used for this purpose, have never worn any such defence for the mouth; and this without the slightest injurious effect or uncomfortable feeling beyond that of a cold face, which becomes comparatively trifling by habit.

In speaking of the external clothing sufficient for health in this climate, it must be confessed that, in severe exposure, quite a *load* of woollen clothes, even of the best quality, is insufficient to retain a comfortable degree of warmth; a strong breeze carrying it off so rapidly, that the sensation is that of the cold piercing through the body. A jacket made very long, like those called by seamen 'pea-jackets,' and lined with fur throughout, would be more effectual than twice the weight of woollen clothes, and is indeed almost weather-proof. For the pre-

vention of lumbago, to which our seamen are especially liable, from their well-known habit of leaving their loins imperfectly clothed, every man should be strictly obliged to wear, under his outer clothes, a canvass belt a foot broad, lined with flannel, and having straps to go over the shoulder *.

It is certain, however, that no precautions in clothing are sufficient to maintain health during a polar winter, without a due degree of warmth in the apartments we inhabit. Most persons are apt to associate with the idea of warmth, something like the comfort derived from a good fire on a winter's evening at home; but in these regions the case is inconceivably different: here it is not simple comfort, but health, and therefore ultimately life, that depends upon it. The want of a constant supply of warmth is here immediately followed by a condensation of all the moisture, whether from the breath, victuals, or other sources, into abundant

* Most Greenland sailors use these, but many persons, both officers and men, have an absurd prejudice against what they call 'wearing stays.'

drops of water, very rapidly forming on all the coldest parts of the deck. A still lower temperature modifies, and perhaps improves the annoyance by converting it into ice, which again an occasional increase of warmth dissolves into water. Nor is this the amount of the evil, though it is the only visible part of it; for not only is a moist atmosphere thus incessantly kept up, but it is rendered stagnant also by the want of that ventilation which warmth alone can furnish. With an apartment in this state, the men's clothes and bedding are continually in a moist and unwholesome condition, generating a deleterious air, which there is no circulation to carry off; and whenever these circumstances combine for any length of time together, so surely may the scurvy, to say nothing of other diseases, be confidently expected to exhibit itself.

With a strong conviction of these facts, arising from the extreme anxiety with which I have been accustomed to watch every minute circumstance connected with the health of our people, it may be conceived how

highly I must appreciate any means that can be devised to counteract effects so pernicious. Such means have been completely furnished by Mr. Sylvester's warming apparatus, a contrivance of which I scarcely know how to express my admiration in adequate terms. The alteration adopted on this voyage of placing this stove in the very bottom of the hold, produced not only the effect naturally to be expected from it, of increasing the rapidity of the current of warm air, and thus carrying it to all the officers' cabins with less loss of heat in its passage; but was also accompanied by an advantage scarcely less important, which had *not* been anticipated. This was the perfect and uniform warmth maintained during the winter in both cable-tiers, which, when cleared of all the stores, gave us another habitable deck, on which more than one-third of the men's hammocks were berthed; thus affording to the ships' companies, during seven or eight months of the year, the indescribable comfort of nearly twice the space for their beds, and twice the volume of air to breathe

in. It need scarcely be added, how conducive to wholesome ventilation, and to the prevention of moisture below, such an arrangement proved; suffice it to say, that we have never before been so free from moisture, and that I cannot but chiefly attribute to this apparatus the unprecedented good state of health we enjoyed during this winter.

Every attention was, as usual, paid to the occupation and diversion of the men's minds, as well as to the regularity of their bodily exercise. Our former amusements being almost worn threadbare, it required some ingenuity to devise any plan that should possess the charm of novelty to recommend it. This purpose was completely answered, however, by a proposal of Captain Hoppner, to attempt a *masquerade*, in which officers and men should alike take a part, but which, without imposing any restraint whatever, would leave every one to their own choice, whether to join in this diversion or not. It is impossible that any idea could have proved more happy, or more exactly suited

to our situation. Admirably-dressed characters of various descriptions readily took their parts, and many of these were supported with a degree of spirit and genuine humour which would not have disgraced a more refined assembly; while the latter might not have disdained, and would not have been disgraced by, copying the good order, decorum, and inoffensive cheerfulness which our humble masquerade presented. It does especial credit to the dispositions and good sense of our men that, though all the officers entered fully into the spirit of these amusements, which took place once a month, alternately on board each ship, no instance occurred of any thing that could interfere with the regular discipline, or at all weaken the respect of the men towards their superiors. Ours were masquerades without licentiousness—carnivals without excess.

But an occupation not less assiduously pursued, and of infinitely more eventual benefit, was furnished by the re-establishment of our schools under the voluntary superintendence of my friend Mr. Hooper in the

Hecla, and of Mr. Mogg in the Fury. By the judicious zeal of Mr. Hooper, the Hecla's school was made subservient, not merely to the improvement of the men in reading and writing (in which, however, their progress was surprisingly great), but also to the cultivation of that religious feeling which so essentially improves the character of a seaman, by furnishing the highest motives for increased attention to every other duty. Nor was the benefit confined to the eighteen or twenty individuals whose want of scholarship brought them to the school-table, but extended itself to the rest of the ship's company, making the whole lower-deck such a scene of quiet rational occupation as I never before witnessed on board a ship. And I do not speak lightly when I express my thorough persuasion that to the moral effects thus produced upon the minds of the men, were owing, in a very high degree, the constant yet sober cheerfulness, the uninterrupted good order, and even, in some measure, the extraordinary state of health which prevailed among us during this winter.

Immediately after the ships were finally secured, we erected the observatory on shore, and commenced our arrangements for the various observations to which our attention was to be directed during the winter. The interest of these, especially of such as related to magnetism, increased so much as we proceeded, that the neighbourhood of the observatory assumed, ere long, almost the appearance of a scattered village, the number of detached houses, having various needles set up in them, soon amounting to seven or eight.

The extreme facility with which sounds are heard at a considerable distance, in severely cold weather, has often been a subject of remark ; but a circumstance occurred at Port Bowen, which deserves to be noticed as affording a sort of measure of this facility, or at least conveying to others some definite idea of the fact. Lieutenant Foster having occasion to send a man from the observatory to the opposite shore of the harbour, a measured distance of 6696 feet, or about one statute mile and two-tenths, in order to fix

a meridian mark, had placed a second person half-way between, to repeat his directions ; but he found on trial that this precaution was unnecessary, as he could without difficulty keep up a conversation with the man at the distant station. The thermometer was at this time -18° , the barometer 30.14 inches, and the weather nearly calm, and quite clear and serene.

The meteorological phenomena observed during this winter, like most of its other occurrences, differed so little in character from those noticed on the former voyages, as to render a separate description of each wholly unnecessary.

This winter certainly afforded but few brilliant displays of the Aurora.

About midnight on the 27th of January, this phenomena broke out in a single compact mass of brilliant yellow light, situated about a S.E. bearing, and appearing only a short distance above the land. This mass of light, notwithstanding its general continuity, sometimes appeared to be evidently composed of numerous pencils of rays, com-

pressed as it were laterally into one, its limits both to the right and left being well defined and nearly vertical. The light, though very bright at all times, varied almost constantly in intensity, and this had the appearance (not an uncommon one in the Aurora) of being produced by one volume of light overlaying another, just as we see the darkness and density of smoke increased by cloud rolling over cloud. While Lieutenants Sherer and Ross, and myself, were admiring the extreme beauty of this phenomenon from the observatory, we all simultaneously uttered an exclamation of surprise at seeing a bright ray of the Aurora shoot suddenly downward from the general mass of light, *and between us and the land*, which was there distant only three thousand yards. Had I witnessed this phenomenon by myself, I should have been disposed to receive with caution the evidence even of my own senses, as to this last fact; but the appearance conveying precisely the same idea to three individuals at once, all intently engaged in looking towards the spot, I have no doubt

that the ray of light actually passed within that distance of us.

About one o'clock on the morning of the 23d February, the Aurora again appeared over the hills in a south direction, presenting a brilliant mass of light, very similar to that just described. The rolling motion of the light laterally was here also very striking, as well as the increase of its intensity thus occasioned. The light occupied horizontally about a point of the compass, and extended in height scarcely a degree above the land, which seemed, however, to conceal from us a part of the phenomenon. It was always evident enough that the most attenuated light of the Aurora sensibly dimmed the stars, like a thin veil drawn over them. We frequently listened for any sound proceeding from this phenomenon, but never heard any. Our variation-needles, which were extremely light, suspended in the most delicate manner, and from the weak directive energy susceptible of being acted upon by a very slight disturbing force, were never in a single instance sensibly affected by the

Aurora, which could scarcely fail to have been observed at some time or other, had any such disturbance taken place, the needles being visited every hour for several months, and oftener, when anything occurred to make it desirable.

The meteors called Falling-stars were much more frequent during this winter than we ever before saw them, and particularly during the month of December.

Particular attention was paid to the changes in the barometer during this winter, to which much encouragement was given by the excellence of the instruments with which we were now furnished*. The times of register *at sea* had been three and nine, A.M. and P.M.; those hours having been recommended as the most proper for detecting any horary

* For this circumstance we are indebted to the kindness and well-known scientific zeal of Mr. Daniell, who himself superintended the construction of our barometers, and especially of one excellent instrument by Newman, to be used as a standard with which the others could be compared. We owe a similar obligation to Mr. Daniell with respect to thermometers.

oscillations of the mercurial column. When we were fixed for the winter, and our attention could be more exclusively devoted to scientific objects, the register was extended to four and ten, and subsequently to five and eleven o'clock. The most rigid attention to the observation and correction of the column, during several months, discovered an oscillation amounting only to ten thousandth-parts of an inch. The times of the maximum and minimum altitude appear, however, decidedly to lean to four and ten o'clock, and to follow a law directly the reverse, as to time, of that found to obtain in temperate climates, the column being *highest at four*, and *lowest at ten o'clock*, both A.M. and P.M.

The barometer did not appear to indicate beforehand the changes of the weather with any degree of certainty. Indeed the remark that we had always before made, that alterations in the mercurial column more frequently accompany than precede the visible changes of weather in these regions, was equally true of our present experience ; but

on one or two occasions hard gales of considerable duration occurred without the barometer falling at all below the mean altitude of the column in these regions, or even rose steadily during the continuance of the gale. During one week of almost constant blowing weather, and two days of very violent gales from the eastward, in the month of April, the barometer remained considerably above thirty inches the whole time. It is necessary for me here to remark, that the unusual proportion of easterly winds registered in our journals during this winter must, in my opinion, be attributed to the local situation of our winter-quarters, which alone appears to me sufficient to account for the anomaly. The lands on each side of Port Bowen, running nearly east and west, and rising to a height of six to nine hundred feet above the sea, with deep and broad ravines intersecting the country in almost every direction, may be supposed to have had considerable influence on the direction of the wind. In confirmation of this supposition, indeed, it was usually

noticed that the easterly winds were with us attended with clear weather, while the contrary obtained with almost every breeze from the west and north-west, thus reversing in this respect also the usual order of things. It was moreover observed that the clouds were frequently coming from the N.W., when the wind in Port Bowen was easterly. I must, however, except the *gales* we experienced from the eastward, which were probably strong enough to overcome any local deflection to which a light breeze would be subject; and indeed these were always accompanied with overcast weather and a high thermometer. After the middle of October the gales of wind were very few till towards the middle of April, when we experienced more blowing weather than during the whole winter.

[CHAPTER IV.]

Meteorological Phenomena continued—Re-equipment of the ships—Several Journeys undertaken—Open Water in the Offing—Commence sawing a Canal to liberate the Ships—Disruption of the Ice—Departure from Port Bowen.

THE height of the land about Port Bowen deprived us longer than usual of the sun's presence above our horizon. Some of our gentlemen, indeed, who ascended a high hill for the purpose, caught a glimpse of him on the 2d of February; on the 15th it became visible at the observatory, but at the ships not till the 22d, after an absence of one hundred and twenty-one days. It is very long after the sun's reappearance in these regions, however, that the effect of his rays, as to warmth, becomes perceptible; week passes after week with scarcely any rise in the thermometer except for an

hour or two during the day; and it is at this period more than any other, perhaps, that the lengthened duration of a polar winter's cold is most wearisome, and creates the most impatience. Towards the third week in March, thin flakes of snow lying upon black painted wood or metal, and exposed to the sun's direct rays in a sheltered situation, readily melted. In the second week of April any very light covering of sand or ashes upon the snow close to the ships might be observed to make its way downward into holes; but a coat of sand laid upon the unsheltered ice, to the distance of about two-thirds of a mile, for dissolving a canal to hasten our liberation, produced no such sensible effect till the beginning of May. Even then the dissolution was very trifling till about the first week in June, when pools of water began to make their appearance, and not long after this a small boat would have floated down it. On shore the effect is in general still more tardy, though some deception is there occasioned by the dissolution of the snow next the

ground, while its upper surface is to all appearance undergoing little or no change. Thus a greater alteration is sometimes produced in the aspect of the land by a single warm day in an advanced part of the season, than in many weeks preceding; in consequence of the last crust of snow being dissolved, leaving the ground at length entirely bare. We could now perceive the snow beginning to leave the stones from day to day, as early as the last week in April. Towards the end of May a great deal of snow was dissolved daily, but owing to the porous nature of the ground which absorbed it as fast as it was formed, it was not easy to procure water for drinking on shore, even as late as the 10th of June. In the ravines, however, it could be heard trickling under stones before that time; and about the 18th, many considerable streams were formed, and constantly running both night and day. After this, the thawing proceeded at an inconceivably rapid rate, the whole surface of the floes being covered with large pools of water rapidly increasing in size and depth.

We observed nothing extraordinary with respect to the sun's light about the shortest day; but as early as the 20th of November Arcturus could very plainly be distinguished by the naked eye, when near the south meridian at noon. About the first week in April the reflection of light from the snow became so strong as to create inflammation in the eyes; and notwithstanding the usual precaution of wearing black crape veils during exposure, several cases of snow-blindness occurred shortly afterwards.

There are perhaps few things more difficult to obtain than a comparative measure of the quantity of snow that falls at different places, owing to the facility with which the wind blows it off a smooth surface, such as a floe of level ice, and the collection occasioned by drift in consequence of the smallest obstruction*. Thus, its mean

* If even a fair measure of the *depth* could be obtained, it would not immediately determine the comparative *quantity*; for a cubic foot of snow so minute as that which falls in high latitudes, and in the compact state in which it lies upon the ground, would probably weigh much more, and produce a great deal

depth at Port Bowen, measured in twenty different places on the smooth ice of the harbour, was three inches on the 5th of April, and on the 1st of May it had only increased to four and a half inches, while an immense bank fourteen feet deep had formed on one side of the Hecla, occasioned by the heavy drifts. The crystals were, as usual, extremely minute during the continuance of the cold weather, and more or less of these were always falling, even on the clearest days.

The animals seen at Port Bowen may now be briefly noticed. The principal of these seen during the winter were bears, of which we killed twelve from October to June, being more than during all the other voyages taken together; and several others were seen. One of these animals was near

more water, than the same measure in a less severe climate, where it usually falls in larger flakes. The weight of a cubic foot of snow at Port Bowen, dug out of a drift, and weighed by Mr. Rowland, was thirty pounds, being the mean of several experiments all agreeing very nearly.

proving fatal to a seaman of the *Fury*, who, having straggled from his companions, when at the top of a high hill saw a large bear coming towards him. Being unarmed, he prudently made off, taking off his boots to enable him to run the faster, but not so prudently precipitated himself over an almost perpendicular cliff, down which he was said to have rolled or fallen several hundred feet; here he was met by some of the people in so lacerated a condition, as to be in a very dangerous state for some time after*.

A she-bear, killed in the open water on our first arrival at Port Bowen, afforded a striking instance of maternal affection in her anxiety to save her two cubs. She might herself easily have escaped the boat, but would not forsake her young, which she was actually 'towing' off, by allowing them to rest on her back, when the boat

* The men applying his name to the hill, called it Mount Cotterell, by which it is distinguished in the chart, for the sake of reference in our measurement of its height.

came near them. A second similar instance occurred in the spring, when two cubs having got down into a large crack in the ice, their mother placed herself before them, so as to secure them from the attacks of our people, which she might easily have avoided herself.

This unusual supply of bear's flesh was particularly serviceable as food for the Esquimaux dogs we had brought out, and which were always at work in a sledge; especially as, during the winter, our number was increased by the birth of six others of these useful animals.

One or two foxes (*Canis Lagopus*) were killed, and four caught in traps during the winter, weighing from four pounds and three-quarters to three pounds and three-quarters. The colour of one of these animals, which lived for some time on board the *Fury*, and became tolerably tame, was nearly pure white till the month of May, when he shed his winter-coat, and became of a dirty chocolate colour, with two or three light-brown spots. Only three hares

(*Lepus Variabilis*) were killed from October to June, weighing from six to eight pounds and three-quarters. Their fur was extremely thick, soft, and of the most beautiful whiteness imaginable. We saw no deer near Port Bowen at any season, neither were we visited by their enemies the wolves. A single ermine and a few mice (*Mus Hudsonius*) complete, I believe, our scanty list of quadrupeds at this desolate and unproductive place.

Of birds, we had a flock or two of ducks occasionally flying about the small lanes of open water in the offing, as late as the 3rd of October; but none from that time till the beginning of June, and then only a single pair was occasionally seen. A very few grouse were met with also after our arrival at Port Bowen; a single specimen was obtained on the 23rd of December, and another on the 18th of February. They again made their appearance towards the end of March, and in less than a month about two hundred were killed; after which we scarcely saw another, for what reason we could not con-

jecture, except that they might possibly be on their way to the northward, and that the utter barrenness of the land about Port Bowen afforded no inducement for their remaining in our neighbourhood.

Lieutenant Ross, who paid great attention to ornithology, remarked that the grouse met with here are of three kinds, namely, the ptarmigan (*Tetrao Lagopus*), the rock-grouse (*Tetrao Rupestris*), and the willow-partridge (*Tetrao Albus*). Of these only the two former were seen in the spring, and by far the greater number killed were of the first-mentioned species. They usually had in their maws the leaves of the *Dryas Integrifolia*, buds of the *Saxifraga Oppositifolia*, *Salix Arctica*, and *Draba Alpina*, the quantities being according to the order in which the plants have here been named. A few leaves also of the *Polygonum Viviparum* were found in one or two specimens. The snow-bunting, with its sprightly note, was, as usual, one of our earliest visitants in the spring; but these were few in number, and remained only a short time. A

very few sand-pipers were also seen, and now and then one or two glaucous, ivory, and kittiwake gulls. A pair of ravens appeared occasionally during the whole winter here, as at most of our former winter stations.

With a view to extend our geographical knowledge as much as our means permitted, three land journeys were undertaken as soon as the weather was sufficiently warm for procuring any water. The first party, consisting of six men under Captain Hoppner, were instructed to travel to the eastward, to endeavour to reach the sea in that direction, and to discover the communication which probably exists there with Admiralty Inlet, so as to determine the extent of that portion of insular land on which Port Bowen is situated. They returned on the 14th, after a very fatiguing journey, and having with difficulty travelled a degree and three-quarters to the eastward of the ships, in latitude $73^{\circ} 19'$, from which position no appearance of the sea could be perceived. Captain Hoppner described the ravines as

extremely difficult [to pass, many of them being four or five hundred feet deep and very precipitous. These being numerous, and running chiefly in a north and south direction, appearing to empty themselves into Jackson's Inlet, preclude the possibility of performing a quick journey to the eastward. During the whole fortnight's excursion, scarcely a patch of vegetation could be seen.

The two other parties, consisting of four men each, under the respective commands of Lieutenants Sherer and Ross, were directed to travel, the former to the southward and the latter to the northward, along the coast of Prince Regent's Inlet, for the purpose of surveying it accurately, and of obtaining observations for the longitude and variation at the stations formerly visited by us on the 7th and 15th of August, 1819. I was also very anxious to ascertain the state of the ice to the northward, to enable me to form some judgment as to the probable time of our liberation.

These parties found the travelling along shore so good as to enable them, not only to reach those spots, but to extend their journeys far beyond them. Lieutenant Ross returning on the 15th, brought the welcome intelligence of the sea being perfectly open and free from ice at the distance of twenty-two miles to the northward of Port Bowen, by which I concluded—what, indeed, had long before been a matter of probable conjecture—that Barrow's Strait was not permanently frozen during the winter. From the tops of the hills about Cape York, beyond which promontory Lieutenant Ross travelled, no appearance of ice could be distinguished. Lieutenant Sherer returned to the ships on the evening of the 15th, having performed a rapid journey as far as $72\frac{1}{4}^{\circ}$, and making an accurate survey of the whole coast to that distance. In the course of this journey a great many remains of Esquimaux habitations were seen, and these were much more numerous on the southern part of the coast. In a grave

which Lieutenant Sherer opened, in order to form some idea whether the Esquimaux had lately been here, he found the body apparently quite fresh; but as this might, in a northern climate, remain the case for a number of years, and as our board erected in 1819 was still standing untouched and in good order, it is certain these people had not been here since our former visit.

Towards the end of June, the dovekies (*Colymbus Grylle*) were extremely numerous in the cracks of the ice at the entrance of Port Bowen; and as these were the only fresh supply of any consequence that we were able to procure at this unproductive place, we were glad to permit the men to go out occasionally with guns, after the ships were ready for sea, to obtain for their messes this wholesome change of diet; while such excursions also contributed essentially to their general health and cheerfulness. Many hundreds of these birds were thus obtained in the course of a few days. On the evening of the 6th of July, however, I was greatly shocked at being informed by Cap-

tain Hoppner that John Cotterell*, a seaman of the *Fury*, had been found drowned in one of the cracks of the ice, by two other men belonging to the same party, who had been with him but a few minutes before. We could never ascertain precisely in what manner this accident happened, but it was supposed that he must have over-reached himself in stooping for a bird that he had killed. His remains were committed to the earth on Sunday the 10th, with every solemnity which the occasion demanded, and our situation would allow; and a tomb of stones, with a suitable inscription, was afterwards erected over the grave.

In order to obtain oil for another winter's consumption, before the ships could be released from the ice, and our travelling parties having seen a number of black whales in

* It is remarkable that this poor man had, twice before, within the space of nine months, been very near death; for, besides the accident already mentioned, of falling down the hill which bears his name, he was also in imminent danger of dying of dropsy during the winter.

the open water to the northward, two boats from each ship were, with considerable labour, transported four miles along shore in that direction, to be in readiness for killing a whale and boiling the oil on the beach, whenever the open water should approach sufficiently near. They took their station near a remarkable peninsular piece of land on the south side of the entrance to Jackson's Inlet, which had, on the former voyage, been taken for an island. Notwithstanding these preparations, however, it was vexatious to find that on the 9th of July the water was still three miles distant from the boats, and at least seven from Port Bowen. On the 12th, the ice in our neighbourhood began to detach itself, and the boats under the command of Lieutenants Sherer and Ross being launched on the following day, succeeded almost immediately in killing a small whale of 'five feet bone,' exactly answering our purpose. Almost at the same time, and as it turned out very opportunely, the ice at the mouth of our harbour detached itself at an old crack, and drifted

off, leaving only about one mile and a quarter between us and the sea. Half of this distance being occupied by the gravelled canal, which was dissolved quite through the ice in many parts, and had become very thin in all, every officer and man in both ships were set to work without delay to commence a fresh canal from the open water, to communicate with the other. This work proved heavier than we expected, the ice being generally from five to eight feet, and in many places from ten to eleven, in thickness. It was continued, however, with the greatest cheerfulness and alacrity from seven in the morning till seven in the evening daily, the dinner being prepared on the ice, and eaten under the lee of a studding sail erected as a tent.

On the afternoon of the 19th, a very welcome stop was put to our operations by the separation of the floe entirely across the harbour, and about one-third from the ships to where we were at work. All hands being instantly recalled by signal, were, on their return, set to work to get the ships into the

gravelled canal, and to saw away what still remained in it to prevent our warping to sea. This work, with only half an hour's intermission for the men's supper, was continued till half-past six the following morning, when we succeeded in getting clear. The weather being calm, two hours were occupied in towing the ships to sea, and thus the officers and men were employed at a very laborious work for twenty-six hours, during which time there were, on one occasion, fifteen of them overboard at once; and indeed several individuals met with the same accident three times. It was impossible, however, to regret the necessity of these comparatively trifling exertions, especially as it was now evident that to have sawed our way out, without any canal, would have required at least a fortnight of heavy and fatiguing labour.

CHAPTER V.

Sail over towards the Western Coast of Prince Regent's Inlet—Stopped by the Ice—Reach the Shore about Cape Seppings—Favourable Progress along the Land—Fresh and repeated Obstructions from Ice—Both Ships driven on Shore—Fury seriously damaged—Unsuccessful Search for a Harbour for heaving her down to repair.

July 20.—ON standing out to sea, we sailed, with a light southerly wind, towards the western shore of Prince Regent's Inlet, which it was my first wish to gain, on account of the evident advantage to be derived from coasting the southern part of that portion of land called in the chart 'North Somerset,' as far as it might lead to the westward; which, from our former knowledge, we had reason to suppose it would do as far at least as the longitude of 95° , in the parallel of about $72\frac{3}{4}^{\circ}$. After sailing

about eight miles, we were stopped by a body of close ice lying between us and a space of open water beyond. By way of occupying the time in further examination of the state of the ice, we then bore up with a light northerly wind, and ran to the south-eastward, to see if there was any clear water between the ice and the land in that direction; but found that there was no opening between them to the southward of the flat-topped hill laid down in the chart, and now called MOUNT SHERER. Indeed, I believe that, at this time, the ice had not yet detached itself from the land to the southward of that station. On standing back, we were shortly after enveloped in one of the thick fogs which had, for several weeks past, been observed almost daily hanging over some part of the sea in the offing, though we had scarcely experienced any in Port Bowen, until the water became open at the mouth of the harbour.

On the clearing up of the fog on the 21st, we could perceive no opening of the ice leading towards the western land, nor any

appearance of the smallest channel to the southward along the eastern shore. I was determined, therefore, to try at once a little further to the northward, the present state of the ice appearing completely to accord with that observed in 1819, its breadth increasing as we advanced from Prince Leopold's Islands to the southward. As, therefore, I felt confident of being able to push along the shore if we could once gain it, I was anxious to effect the latter object *in any part*, rather than incur the risk of hampering the ships by a vain, or at least a doubtful attempt to force them through a body of close ice several miles wide, for the sake of a few leagues of southing, which would soon be regained by coasting.

Light winds detained us very much, but being at length favoured by a breeze, we carried all sail to the north-west, the ice very gradually leading us towards the Leopold Isles. Having arrived off the northernmost, on the morning of the 22nd, it was vexatious, however curious, to observe the exact coincidence of the present position of

the ice with that which it occupied a little later in the year 1819. The whole body of it seemed to cling to the western shore, as if held there by some strong attraction, forbidding, for the present, any access to it. We now stood off and on, in the hope that a southerly breeze, which had just sprung up, might serve to open us a channel. In the evening the wind gradually freshened, and before midnight had increased to a strong gale, which blew with considerable violence for ten hours, obliging us to haul off from the ice, and to keep in smooth water under the eastern land until it abated; after which not a moment was lost in again standing over to the westward. After running all night, with light and variable winds, through loose and scattered ice, we suddenly found ourselves, on the clearing up of a thick fog through which we had been sailing on the morning of the 24th, within one-third of a mile of Cape Seppings, the land just appearing above the fog in time to save us from danger, the soundings being thirty-eight fathoms, on a rocky bottom. The

Fury being apprized by guns of our situation, both ships were hauled off the land, and the fog soon after dispersing, we had the satisfaction to perceive that the late gale had blown the ice off the land, leaving us a fine navigable channel from one to two miles wide, as far as we could see from the mast-head along the shore. We were able to avail ourselves of this but slowly, however, in consequence of a light southerly breeze still blowing against us.

We had now an opportunity of discovering that a long neck of very low land runs out from the southernmost of the Leopold Islands, and another from the shore to the southward of Cape Clarence. These two had every appearance of joining, so as to make a peninsula, instead of an island, of that portion of land which, on account of our distance preventing our seeing the low beach, had in 1819 been considered under the latter character. It is, however, still somewhat doubtful, and the Leopold Isles, therefore, still retain their original designation on the chart. The land here, when

closely viewed, assumes a very striking and magnificent character; the strata of limestone, which are numerous, and quite horizontally disposed, being much more regular than on the eastern shore of Prince Regent's Inlet, and retaining nearly their whole perpendicular height of six or seven hundred feet, close to the sea. The south-eastern promontory of the southernmost island is particularly picturesque and beautiful, the heaps of loose debris lying here and there up and down the sides of the cliff, giving it the appearance of some huge and impregnable fortress, with immense buttresses of masonry supporting the walls. Near Cape Seppings, and some distance beyond it to the southward, we noticed a narrow stratum of some very white substance, the nature of which we could not at this time conjecture. I may here remark that the whole of Barrow's Strait, as far as we could see to the N.N.E. of the islands, was entirely free from ice; and, from whatever circumstance it may proceed, I do not think that this

part of the Polar Sea is at any season very much encumbered with it.

It was the general feeling, at this period, among us, that the voyage had but now commenced. The labours of a bad summer, and the tedium of a long winter, were forgotten in a moment, when we found ourselves upon ground not hitherto explored, and with every apparent prospect before us of making as rapid a progress as the nature of this navigation will permit, towards the final accomplishment of our object.

Early on the morning of the 25th, we passed the opening in the land delineated in the former chart of this coast, in latitude $73^{\circ} 34'$, which we now found to be a bay about three miles deep, but apparently open to the sea. I named it after my friend HASTINGS ELWIN, Esq., of Bristol, as a token of grateful esteem for that gentleman.

A breeze enabling us again to make some progress, and an open channel still favouring us, of nearly the same breadth as before, we passed during the night a second bay,

about the same size as the other, and also appearing open to the sea; it lies in latitude (by account from the preceding and following noon) $73^{\circ} 19' 30''$, and its width is one mile and a half. It was called BARRY BAY, after my friend Captain Robert Batty, of the Grenadier Guards. We now perceived that the ice closed completely in with the land a short distance beyond us; and having made all the way we could, were obliged to stand off and on during the day in a channel not three-quarters of a mile wide. This channel being still more contracted towards the evening, we were obliged to make fast to some grounded land ice upon the beach, in four fathoms water, there to wait some change in our favour. We here observed traces of our old friends the Esquimaux, there being several of their circles of stones, though not of recent date, close to the sea. We also found a more abundant vegetation than before; and several plants familiar to us on the former voyages, but not yet procured on this, were now added to our collections.

The ice opening in the afternoon of the 27th, we cast off and run four or five miles with a northerly breeze. This wind, however, always had the effect of making the ice close the shore, while a southerly breeze as uniformly opened it; so that on this coast, as on several others that I have known, a contrary wind—however great the paradox may seem—proved, on the whole, the most favourable for making progress. This circumstance is simply to be attributed to the greater abundance of open water in the parts we have left behind (in the present instance the open sea of Barrow's Strait) than those towards which we are going. We were once more obliged to make fast, therefore, to some grounded ice close to the beach, rather than run any risk of hampering the ships, and rendering them unable to take advantage of a change in our favour.

A light southerly breeze on the morning of the 28th gradually cleared the shore, and a fresh wind from the N.W. then immediately succeeded. We instantly took advantage of this circumstance, and casting

off at six A.M. ran eight or nine miles without obstruction, when we were stopped by the ice, which, in a closely packed and impenetrable body, stretched close into the shore, as far as the eye could reach from the crow's nest. Being anxious to gain every foot of distance that we could, and perceiving some grounded ice which appeared favourable for making fast to, just at a point where the clear water terminated, the ships were run to the utmost extent of it, and a boat prepared from each to examine the depth of water at the intended anchoring place. Just as I was about to leave the Hecla for that purpose, the ice was observed to be in rapid motion towards the shore. The Fury was immediately hauled in by some grounded masses, and placed to the best advantage; but the Hecla being more advanced was immediately beset in spite of every exertion, and after breaking two of the largest ice-anchors in endeavouring to heave in to the shore, was obliged to drift with the ice, several masses of which had fortunately interposed them-

selves between us and the land. The ice clackening around us a little in the evening, we were enabled, with considerable labour, to get to some grounded masses, where we lay much exposed, as the Fury also did. In this situation, our latitude being $72^{\circ} 51' 51''$, we saw a comparatively low point of land three or four leagues to the southward, which proved to be near that which terminated our view of this coast in 1819.

On the 29th, the ice being slack for a short distance, we shifted the Hecla half a mile to the northward, into a less insecure berth. I then walked to a broad valley facing the sea near us, where a considerable stream discharged itself, and where, in passing in the ships, a large fish had been observed to jump out of the water. In hopes of finding salmon here, we tried for some time with several hand-nets, but nothing was caught or seen. In this place were a number of the Esquimaux stone circles, apparently of very old date, being quite overgrown with grass, moss, and other plants. In the neighbourhood of these habi-

tations, the vegetation was much more luxuriant than anything of the kind we had seen before during this voyage. The state of this year's plants was now very striking, compared with those of the last, and afforded strong evidence, if any had been wanting, of the difference between the two seasons. I was particularly struck with the appearance of some moss collected by Mr. Hooper, who pointed out to me upon the same specimen the last year's miserable seeds just peeping above the leaves, while those of the present summer had already shot three-quarters of an inch beyond them. Another circumstance which we noticed about this time, and still more so as the season advanced, was the rapid progress which the warmth had already made in dissolving the *last* year's snow, this being always easily known by its dingy colour, and its admixture with the soil. Of the past winter's snow not a particle could be seen, at the close of July, on any part of this coast. These facts, together with the beautiful weather we had enjoyed for many weeks past, all tended to

show that we were now favoured with an unusually fine summer. We found in this place, in the dry bed of an old stream, innumerable fossils in the limestone, principally shells and madrepore. On a hill abreast of the Hecla, and at an elevation of not less than three or four hundred feet above the sea, one particular spot was discovered, in which the same kind of shells first found in Barrow's Strait in 1819, occurred in very great abundance and perfection, wholly detached from the lime in which, for the most part, they were found imbedded in other places on this coast. Indeed, it was quite astonishing, in looking at the numberless fossil animal remains occurring in many of the stones, to consider the countless myriads of shell-fish and marine insects which must once have existed on this shore. The cliffs next the sea, which here rise to a perpendicular height of between four and five hundred feet, were continually breaking down at this season, and adding, by falls of large masses of stone, to the slope of debris lying at their

foot. The ships lay so close to the shore as to be almost within the range of some of these tumbling masses, there being at high water scarcely beach enough for a person to walk along the shore. The time of high water, near the opposition of the moon this night, was between half-past eleven and midnight, being nearly the same as at Port Bowen at full and change.

The ice opening for a mile and a half alongshore on the 30th, we shifted the Hecla's berth about that distance to the southward, chiefly to be enabled to see more distinctly round a point which before obstructed our view, though our situation, as regarded the security of the ship, was much altered for the worse. The Fury remained where she was, there being no second berth even so good as the bad one where she was now lying. In the afternoon it blew a hard gale, with constant rain, from the northward, the clouds indicating an easterly wind in other parts. This wind, which was always the troublesome one to us, soon brought the ice closer and closer,

till it pressed with very considerable violence on both ships, though the most upon the Fury, which lay in a very exposed situation. The Hecla received no damage but the breaking of two or three hawsers, and a part of her bulwark torn away by the strain upon them. In the course of the night we had reason to suppose, by the Fury's heeling, that she was either on shore, or still heavily pressed by the ice from without. Early on the morning of the 31st, as soon as a communication could be effected, Captain Hoppner sent to inform me that the Fury had been forced on the ground, where she still lay; but that she would probably be hove off without much difficulty at high water, provided the external ice did not prevent it. I also learned from Captain Hoppner that a part of one of the propelling wheels had been destroyed, the chock through which its axis passed being forced in considerably, and the palm broken off one of the bower anchors. Most of this damage, however, was either of no very material importance, or could easily be

repaired. A large party of hands from the Hecla being sent round to the Fury towards high water, she came off the ground with very little strain, so that, upon the whole, considering the situation in which the ships were lying, we thought ourselves fortunate in having incurred no very serious injury. The Fury was shifted a few yards into the best place that could be found, and the wind again blowing strong from the northward, the ice remained close about us. A shift of wind to the southward in the afternoon at length began gradually to slacken it, but it was not till six A.M. on the 1st of August that there appeared a prospect of making any progress. There was, at this time, a great deal of water to the southward, but between us and the channel there lay one narrow and not very close stream of ice touching the shore. A shift of wind to the northward determined me at once to take advantage of it, as nothing but a free wind seemed requisite to enable us to reach this promising channel. The signal to that effect was immediately made, but while the

sails were setting, the ice, which had at first been about three-quarters of a mile distant from us, was observed to be closing the shore. The ships were cast with all expedition, in hopes of gaining the broader channel before the ice had time to shut us up. So rapid, however, was the latter in this its sudden movement, that we had but just got the ships' heads the right way, when the ice came bodily in upon us, being doubtless set in motion by a very sudden freshening of the wind almost to a gale in the course of a few minutes. The ships were now almost instantly beset, and in such a manner as to be literally helpless and unmanageable. In such cases, it must be confessed that the exertions made by heaving at hawsers or otherwise are of little more service than in the occupation they furnish to the men's minds under circumstances of difficulty; for when the ice is fairly acting against the ship, ten times the strength and ingenuity could in reality avail nothing.

The sails were, however, kept set, and as the body of ice was setting to the south-

ward withal, we went with it some little distance in that direction. The Hecla, after thus driving, and now and then forcing her way through the ice, in all about three-quarters of a mile, quite close to the shore, at length struck the ground forcibly several times in the space of a hundred yards, and being then brought up by it, remained immoveable, the depth of water under her keel abaft being sixteen feet, or about a foot less than she drew. The Fury continuing to drive was now irresistibly carried past us, and we escaped, only by a few feet the damage invariably occasioned by ships coming in contact under such circumstances. She had, however, scarcely passed us a hundred yards, when it was evident, by the ice pressing her in, as well as along the shore, that she must soon be stopped like the Hecla; and having gone about two hundred yards further she was observed to receive a severe pressure from a large floe-piece forcing her directly against a grounded mass of ice upon the beach. After setting to the southward for an hour or two longer,

the ice became stationary, no open water being anywhere visible from the mast-head, and the pressure on the ships remaining undiminished during the day. Just as I had ascertained the utter impossibility of moving the Hecla a single foot, and that she must lie quite aground fore and aft as soon as the tide fell, I received a note from Captain Hoppner informing me that the Fury had been so severely 'nipped' and strained as to leak a good deal, apparently about four inches an hour; that she was still heavily pressed both upon the ground and against the large mass of ice within her; that the rudder was at present very awkwardly situated; and that one boat had been much damaged. As the tide fell, the Fury's stern which was aground was lifted several feet, and the Hecla, at low water, having sewed five feet forward and two abaft, we presented altogether no very pleasing or comfortable spectacle. However, about high water, the ice very opportunely slackening, the Hecla was hove off with great ease, and warped to a floe in the offing to which

we made fast at midnight. The Fury was not long after us in coming off the ground, when I was in hopes of finding that any twist or strain by which her leaks might have been occasioned, would, in some measure, have closed when she was relieved from pressure and once more fairly afloat. My disappointment and mortification, therefore, may in some measure be imagined, at being informed by telegraph, about two A.M. on the 2d, that the water was gaining on two pumps, and that a part of the doubling had floated up. The Hecla having, in the mean time, been carried two or three miles to the southward, by the ice which was once more driving in that direction, I directed Captain Hoppner by signal to endeavour to reach the best security inshore which the present slackness of the ice might permit, until it was possible for the Hecla to rejoin him. Presently after, perceiving from the mast-head something like a small harbour nearly abreast of us, every effort was made to get once more towards the shore. In this the ice happily

favoured us, and after making sail, and one or two tacks, we got in with the land, when I left the ship in a boat to sound the place, and search for shelter. I soon had the mortification to find that the harbour which had appeared to present itself so opportunely, had not more than six or seven feet water in any part of it, the whole of its defences being composed of the stones and soil washed down by a stream which here emptied itself into the sea. From this place, indeed, where the land gradually became much lower in advancing to the southward, the whole nature of the soundings entirely altered, the water gradually shoaling in approaching the beach, so that the ships could scarcely come nearer in most parts than a quarter of a mile. At this distance, the whole shore was more or less lined with grounded masses of ice; but after examining the soundings within more than twenty of them, in the space of about a mile, I could only find two that would allow the ships to float at low water, and that by some care in placing and keeping

them there. Having fixed a flag on each berg, the usual signal for the ships taking their stations, I rowed on board the *Fury*, and found four pumps constantly going, to keep the ship free, and Captain Hoppner, his officers and men, almost exhausted with the incessant labour of the last eight-and-forty hours. The instant the ships were made fast, Captain Hoppner and myself set out in a boat to survey the shore still further south, there being a narrow lane of water about a mile in that direction ; for it had now become too evident, however unwilling we might have been at first to admit the conclusion, that the *Fury* could proceed no further without repairs, and that the nature of those repairs would in all probability involve the disagreeable, I may say the ruinous, necessity of heaving the ship down. After rowing about three-quarters of a mile, we considered ourselves fortunate in arriving at a bolder part of the beach, where three grounded masses of ice, having from three to four fathoms water at low tide within them, were so disposed as to

afford, with the assistance of art, something like shelter. Wild and insecure as, under other circumstances, such a place would have been thought, for the purpose of heaving a ship down, we had no alternative, and therefore as little occasion as we had time for deliberation. Returning to the ships, we were setting the sails in order to run to the appointed place, when the ice closed in and prevented our moving, and in a short time there was once more no open water to be seen. We were, therefore, under the necessity of remaining in our present berths, where the smallest external pressure must inevitably force us ashore, neither ship having more than two feet of water to spare. One watch of the Hecla's crew were sent round to assist at the Fury's pumps, which required one-third of her ship's company to be constantly employed at them.

The ice coming in with considerable violence on the night of the 2d, once more forced the Fury on shore, so that at low water she sewed two feet and a half. Nothing but the number and strength of the

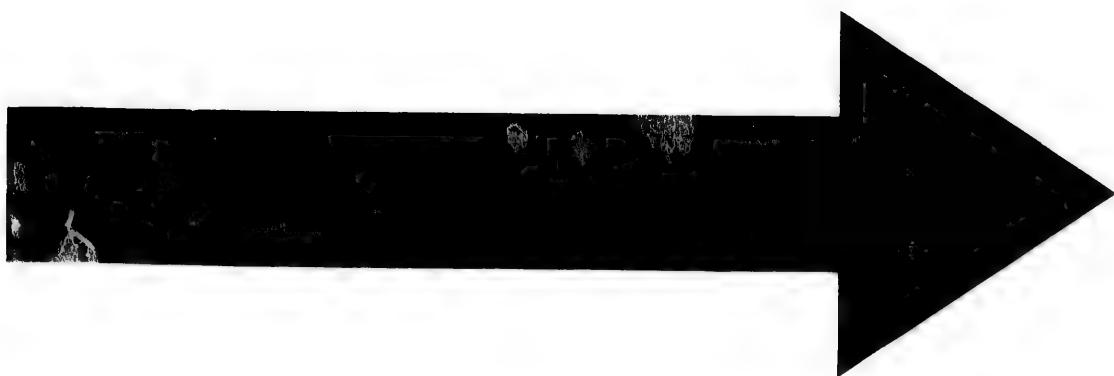
Hecla's hawsers prevented her sharing the same fate, for the pressure was just as much as seven of these, of six inches, and two stream-cables would bear. The Fury floated in the morning, and was enabled to haul off a little, but there was no opening of the ice to allow us to move to our intended station. The more leisure we obtained to consider the state of the Fury, the more apparent became the absolute, however unfortunate, necessity of heaving her down. Four pumps were required to be at work without intermission, to keep her free, and this in perfectly smooth water, shewing that she was in fact so materially injured as to be very far from sea-worthy. One-third of her working men were constantly employed, as before remarked, in this laborious operation, and some of their hands had become so sore from the constant friction of the ropes, that they could hardly handle them any longer without the use of mittens, assisted by the unlaying of the ropes to make them soft. When, in addition to these circumstances, the wet state of the decks and the little

room left, as well as the reduced strength for working the ship or heaving at hawsers among the ice, be considered, I believe that every seaman will admit the impracticability of pursuing this critical navigation till the Fury had been examined and repaired. As, therefore, not a moment could be lost, we took advantage of a small lane of water deep enough for boats, which kept open within the grounded masses along the shore, to convey to the Hecla some of the Fury's dry provisions, and to land a quantity of heavy iron-work, and other stores not perishable; for the moment this measure was determined on, I was anxious, almost at any risk, to commence the lightening of the ship as far as our present insecurity and our distance from the shore would permit.

The wind blowing fresh from the northward, which always increased our difficulties on this coast, the ice pressed so violently upon the ships as almost to force them adrift during the night, employing our people, now sufficiently harassed by their work during the day, for two or three hours, in still

further increasing our security by additional hawsers. We continued landing stores from the Fury, on the 4th, and at night a bower cable was passed round one of the grounded masses alongside of her; for if either ship had once got adrift, it is difficult to say what might have been the consequence.

At two A.M. on the 5th, the ice began to slacken near the ships, and as soon as a boat could be rowed alongshore to the southward, I set out, accompanied by a second from the Fury, for the purpose of examining the state of our intended harbour since the recent pressure, and to endeavour to prepare for the reception of the ships by clearing out the loose ice. On my arrival there, the distance being about a mile, I found that one of the three bergs had shifted its place so materially by the late movements of the ice, as not only to alter the disposition of these masses, on which our whole dependence rested, very much for the worse, but also to destroy all confidence in their stability upon the ground. Land-



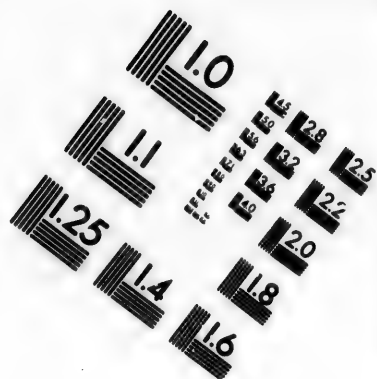
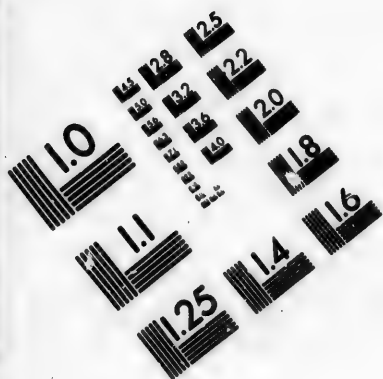
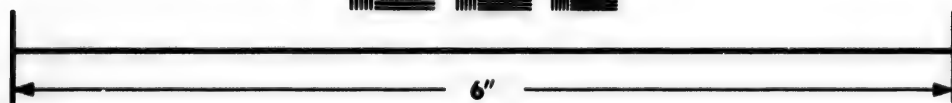
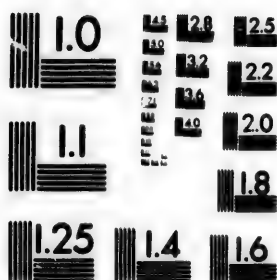


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ing upon one of the bergs, to shew the appointed signal for the ships to come, I perceived, about half a mile beyond us to the southward, a low point forming a little bay, with a great deal of heavy grounded ice lying off it. I immediately rowed to this, in hopes of finding something like a harbour for our purpose, but on my arrival there, had once more the mortification to find that there was not above six feet of water at low tide in any part of it, and within the grounded ice not more than twelve. Having assured myself that no security or shelter was here to be found, I immediately returned to the former place, which the *Hecla* was just reaching. The *Fury* was detained some time by a quantity of loose ice which had wedged itself in, in such a manner as to leave her no room to move outwards; but she arrived about seven o'clock, when both ships were made fast in the best berths we could find, but they were still excluded from their intended place by the quantity of ice which had fixed itself there. Within

twenty minutes after our arrival, the whole body of ice again came in, entirely closing up the shore, so that our moving proved most opportune.

CHAPTER VI.

Formation of a Basin for heaving the Fury down
—Landing of the Fury's Stores, and other preparations—The Ships secured within the Basin
—Impediments from the pressure of the Ice—Fury hove down—Securities of the Basin destroyed by a Gale of Wind—Preparations to tow the Fury out—Hecla re-equipped, and obliged to put to Sea—Fury again driven on shore—Rejoin the Fury; and find it necessary finally to abandon her.

As there was now no longer room for floating the ice out of our proposed basin, all hands were immediately employed in preparing the intended securities against the incursions of the ice. These consisted of anchors carried to the beach, having bower-cables attached to them, passing quite round the grounded masses, and thus enclosing a small space of just sufficient size to admit both ships. The cables we proposed float-

ing by means of the two hand-masts and some empty casks lashed to them as buoys, with the intention of thus making them receive the pressure of the ice a foot or two below the surface of the water. By uncommon exertions on the part of the officers and men, this laborious work was completed before night as far as was practicable until the loose ice should set out; and all the tents were set up on the beach for the reception of the Fury's stores.

The ice remaining quite close on the 6th, every individual in both ships, with the exception of those at the pumps, was employed in landing provisions from the Fury together with the spars, boats, and everything from off her upper deck. The ice coming in, in the afternoon, with a degree of pressure which usually attended a northerly wind on this coast, twisted the Fury's rudder so forcibly against a mass of ice lying under her stern, that it was for some hours in great danger of being damaged, and was indeed only saved by the efforts of

Captain Hoppner and his officers, who, without breaking off the men from their other occupations, themselves worked at the ice-saw. On the following day, the ice remaining as before, the work was continued without intermission, and a great quantity of things landed. The two carpenters, Messrs. Pulfer and Fiddis, took the Fury's boats in hand themselves, their men being required as part of our physical strength in clearing the ship. The armourer was also set to work on the beach in forging bolts for the martingales of the out-riggers. In short, every living creature among us was somehow or other employed, not even excepting our dogs, which were set to drag up the stores on the beach; so that our little dock-yard soon exhibited the most animated scene imaginable. The quickest method of landing casks, and other things not too weighty, was that adopted by Captain Hoppner, and consisted of a hawser secured to the ship's main mast-head, and set up as tight as possible to the anchor on

the beach; the casks being hooked to a block traversing on this as a jack-stay, were made to run down it with great velocity. By this means more than two were got on shore for every one landed by the boats, the latter, however, being constantly employed in addition. The Fury was thus so much lightened in the course of the day, that two pumps were now nearly sufficient to keep her free, and this number continued requisite until she was hove down. Her spirit room was now entirely clear, and on examination the water was found to be rushing in through two or three holes that happened to be in the ceiling, and which were immediately plugged up. Indeed, it was now very evident that nothing but the tightness of the Fury's diagonal ceiling had so long kept her afloat, and that any ship not thus fortified within could not possibly have been kept free by the pumps.

At night, just as the people were going to rest, the ice began to move to the southward, and soon after came in towards the shore, again endangering the Fury's rud-

der *, and pressing her over on her side to so alarming a degree, as to warn us that it would not be safe to lighten her much more in her present insecure situation. One of our bergs also shifted its position by this pressure, so as to weaken our confidence in the pier-heads of our intended basin; and a long 'tongue' of one of them forcing itself under the Hecla's fore-foot, while the drift-ice was also pressing her forcibly from astern, she once more sewed three or four feet forward at low water, and continued to do so, notwithstanding repeated endeavours to haul her off, for four successive tides, the ice remaining so close and so much doubled under the ship, as to render it impossible to move her a single inch. Notwithstanding the state of the ice, however, we did not

* I have mentioned the endangering of the rudders so frequently about this time, that seamen may ask why they were not unshipped. It will give a tolerable idea of the critical situations in which we had for several days past been placed, to state that we had never had sufficient depth of water (about twenty-five feet) for doing so.

remain idle on the 8th, all hands being employed in unrigging the Fury, and landing all her spars, sails, booms, boats, and other top weight.

The ice still continuing very close on the 9th, all hands were employed in attempting, by saws and axes, to clear the Hecla, which still grounded on the tongue of ice every tide. After four hours' labour, they succeeded in making four or five feet of room astern, when the ship suddenly slid down off the tongue with considerable force, and became once more afloat. We then got on shore the Hecla's cables and hawsers for the accommodation of the Fury's men in our tiers during the heaving down, struck our top-masts which would be required as shores and outriggers, and, in short, continued to occupy every individual in some preparation or other. These being entirely completed at an early hour in the afternoon, we ventured to go on with the landing of the coals and provisions from the Fury, preferring to run the risk which would thus be incurred, to the loss of even a few hours

in the accomplishment of our present object. As it very opportunely happened, however, the external ice slackened to the distance of about a hundred yards outside of us, on the morning of the 10th, enabling us, by a most tedious and laborious operation, to clear the ice out of our basin piece by piece. The difficulty of this apparently simple process consisted in the heavy pressure having repeatedly doubled one mass under another, a position in which it requires great power to move them, and also by the corners locking in with the sides of the bergs. Our next business was to tighten the cables sufficiently by means of purchases, and to finish the floating of them in the manner and for the purpose before described. After this had been completed, the ships had only a few feet in length, and nothing in breadth to spare, but we had now great hopes of going on with our work with increased confidence and security. The Fury, which was placed inside, had something less than eighteen feet at low water; the Hecla lay in four fathoms, the bottom being

strewn with large and small fragments of limestone.

While thus employed in securing the ships, the smoothness of the water enabled us to see, in some degree, the nature of the Fury's damage; and it may be conceived how much pain it occasioned us plainly to discover that both the stern post and fore-foot were broken and turned up on one side with the pressure. We also could perceive, as far as we were able to see along the main-keel, that it was much torn, and we had therefore reason to conclude that the damage would altogether prove very serious. We also discovered that several feet of the Hecla's false keel was torn away abreast of the fore-chains, in consequence of her grounding forward so frequently.

The ships being now as well secured as our means permitted from the immediate danger of ice, the clearing of the Fury went on during the 11th with increased confidence, though greater alacrity was impossible, for nothing could exceed the spirit and zealous activity of every individual, and

as things had turned out, the ice had not obliged us to wait a moment, except at the actual times of its pressure. Being favoured with fine weather, we continued our work very quickly, so that on the 12th every cask was landed, and also the powder; and the spare sails and clothing put on board the *Hecla*. On the 13th we found that a mass of heavy ice, which had been aground within the *Fury*, had now floated off alongside of her at high water, still further contracting our already narrow basin, and leaving the ship no room for turning round. At the next high water, therefore, we got a purchase on it, and hove it out of the way, so that at night it drifted off altogether. The coals and preserved meats were the principal things now remaining on board the *Fury*, and these we continued landing by every method we could devise as the most expeditious. The tide rose so considerably at night, new moon occurring within an hour of high water, that we were much afraid of our bergs floating: they remained firm, however, even though the ice came in

with so much force as to break one of our hand-masts, a fir spar of twelve inches diameter. As the high tides and the lightening of the Fury now gave us sufficient depth of water for unshipping the rudders, we did so, and laid them upon the small berg astern of us, for fear of their being damaged by any pressure of the ice.

Early on the morning of the 14th, the ice slackening a little in our neighbourhood, we took advantage of it, though the people were much fagged, to tighten the cables, which had stretched and yielded considerably by the late pressure. It was well that we did so; for in the course of this day we were several times interrupted in our work by the ice coming with a tremendous strain on the north cables, the wind blowing strong from the N.N.W., and the whole 'pack' outside of us setting rapidly to the southward. Indeed, notwithstanding the recent tightening and re-adjustment of the cables, the bight was pressed in so much, as to force the Fury against the berg astern of her, twice in the course of the day. Mr.

Waller, who was in the hold the second time that this occurred, reported that the coals about the keelson were moved by it, imparting the sensation of a part of the ship's bottom falling down; and one of the men at work there was so strongly impressed with that belief, that he thought it high time to make a spring for the hatchway. From this circumstance it seemed more than probable that the main keel had received some serious damage near the middle of the ship.

From this trial of the efficacy of our means of security, it was plain that the *Fury* could not possibly be hove down under circumstances of such frequent and imminent risk: I therefore directed a fourth anchor, with two additional cables, to be carried out, with the hope of breaking some of the force of the ice by its offering a more oblique resistance than the other, and thus by degrees turning the direction of the pressure from the ships. We had scarcely completed this new defence, when the largest floe we had seen since leaving

Port Bowen came sweeping along the shore, having a motion to the southward of not less than a mile and a half an hour; and a projecting point of it, just grazing our outer berg, threatened to overturn it, and would certainly have dislodged it from its situation, but for the cable recently attached to it. A second similar occurrence took place with a smaller mass of ice, about midnight, and near the top of an unusually high spring tide, which seemed ready to float away every security from us. For three hours about the time of this high water, our situation was a most critical one, for had the bergs, or indeed any one of them, been carried away or broken, both ships must inevitably have been driven on shore by the very next mass of ice that should come in. Happily, however, they did not suffer any further material disturbance, and the main body keeping at a short distance from the land until the tide had fallen, the bergs seemed to be once more firmly resting on the ground. The only mischief, therefore, occasioned by this dis-

turbance was the slackening of our cables by the alteration in the positions of the several grounded masses, and the consequent necessity of employing more time, which nothing but absolute necessity could induce us to bestow, in adjusting and tightening the whole of them afresh.

The wind veering to the W.N.W. on the morning of the 15th, and still continuing to blow strong, the ice was forced three or four miles off the land in the course of a few hours, leaving us a quiet day for continuing our work, but exciting no very pleasing sensations, when we considered what progress we might have been making, had we been at liberty to pursue our object. The land was, indeed, so clear of ice to the southward, that Dr. Neill, who walked a considerable distance in that direction, could see nothing but an open channel inshore to the utmost extent of his view. We took advantage of this open water to send the launch for the *Fury's* iron work left at the former station; for though the few men thus employed could very ill be spared, we

were obliged to arrange everything with reference to the ultimate saving of time; and it would have occupied both ships' companies more than a whole day, to carry the things round by land.

The Fury being completely cleared at an early hour on the 16th, we were all busily employed in 'winding' the ship, and in preparing the outriggers, shores, purchases, and additional rigging. Though we purposely selected the time of high water for turning the ship round, we had scarcely a foot of space to spare for doing it, and indeed, as it was, her fore-foot touched the ground, and loosened the broken part of the wood so much as to enable us to pull it up with ropes, when we found the fragments to consist of the whole of the 'gripe' and most of the 'cutwater.' The strong breeze continuing, and the sea rising as the open water increased in extent, our bergs were sadly washed and wasted; every hour producing a sensible and serious diminution in their bulk. As, however, the main body of ice still kept off, we were in hopes,

now that our preparations were so near completed, we should have been enabled in a few hours to see the extent of the damage, and repair it sufficiently to allow us to proceed. In the evening we received the Fury's crew on board the Hecla, every arrangement and regulation having been previously made for their personal comfort, and for the preservation of cleanliness, ventilation, and dry warmth throughout the ship. The officers of the Fury, by their own choice, pitched a tent on shore for messing and sleeping in, as our accommodation for two sets of officers was necessarily confined. On the 17th, when every preparation was completed, the cables were found again so slack, by the wasting of the bergs in consequence of the continued sea, and possibly also in part by the masses having moved somewhat inshore, that we were obliged to occupy several hours in putting them to rights, as we should soon require all our strength at the purchases. One berg had also, at the last low water, fallen over on its side, in consequence of its

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Engraved by J. H. Head.

HEAVING DOWN THE PORT.

Published by John Murray, London, 1884.

Drawn by J. H. Head.

substance being undermined by the sea, and the cable surrounding it was thus forced so low under water as no longer to afford protection from the ice should it again come in. In tightening the cables, we found it to have the effect of bringing the bergs in towards the shore, still further contracting our narrow basin; but any thing was better than suffering them to go adrift. This work being finished at ten P.M. the people were allowed three hours' rest only, it being necessary to heave the ship down at or near high water, as there was not sufficient depth to allow her to take her distance at any other time of tide. Every preparation being made, at three A.M. on the 18th, we began to heave her down on the larboard side, but when the purchases were nearly a-block, we found that the strops under the Hecla's bottom, as well as some of the Fury's shorefasts, had stretched or yielded so much, that they could not bring the keel out of water within three or four feet. We immediately eased her up again, and re-adjusted everything as requisite, hauling her

further inshore than before by keeping a considerable heel upon her, so as to make less depth of water necessary ; and we were then in the act of once more heaving her down, when a snow-storm came on and blew with such violence off the land, as to raise a considerable sea. The ships had now so much motion as to strain the geer very much, and even to make the lower masts of the *Fury* bend in spite of the shores ; we were, therefore, most unwillingly compelled to desist until the sea should go down, keeping everything ready to re-commence the instant we could possibly do so with safety. The officers and men were now literally so harassed and fatigued as to be scarcely capable of further exertion without some rest ; and on this and one or two other occasions, I noticed more than a single instance of stupor amounting to a certain degree of failure in intellect, rendering the individual so affected quite unable at first to comprehend the meaning of an order, though still as willing as ever to obey it. It was therefore perhaps a fortunate necessity which

produced the intermission of labour which the strength of every individual seemed to require.

The gale rather increasing than otherwise during the whole day and night of the 18th, had on the following morning, when the wind and sea still continued unabated, so destroyed the bergs on which our sole dependence was placed, that they no longer remained aground at low water; the cables had again become slack about them, and the basin we had taken so much pains in forming had now lost all its defences, at least during a portion of every tide. - It will be plain too, if I have succeeded in giving a distinct description of our situation, that, independently of the security of the ships, there was now nothing left to sea-ward by which the Hecla could be held out in that direction while heaving the Fury down, so that our preparations in this way were no longer available. After a night of most anxious consideration and consultation with Captain Hoppner, who was now my mess-mate in the Hecla, it appeared but too plain

that, should the ice again come in, neither ship could any longer be secured from driving on shore. It was therefore determined instantly to prepare the Hecla for sea, making her thoroughly effective in every respect; so that we might at least push *her* out into comparative safety among the ice, when it closed again, taking every person on board her, securing the Fury in the best manner we could, and returning to her the instant we were able to do so, to endeavour to get her out, and to carry her to some place of security for heaving down. If after the Hecla was ready, time should still be allowed us, it was proposed immediately to put into the Fury all that was requisite, or at least as much as she could safely carry, and towing her out into the ice, to try the effect of 'foddering' the leaks by sails under those parts of her keel which we knew to be damaged, until some more effectual means could be resorted to.

Having communicated to the assembled officers and ships' companies my views and intentions, and moreover given them to un-

derstand that I hoped to see the Hecla's top-gallant-yards across before we slept, we commenced our work; and such was the hearty good-will and indefatigable energy with which it was carried on, that by midnight the whole was accomplished, and a bower-anchor and cable carried out in the offing, for the double purpose of hauling out the Hecla when requisite, and as some security to the Fury, if we were obliged to leave her. The people were once more quite exhausted by these exertions, especially those belonging to the Fury, who had never thoroughly recovered their first fatigues. The ice being barely in sight, we were enabled to enjoy seven hours of undisturbed rest; but the wind becoming light, and afterwards shifting to the N.N.E., we had reason to expect the ice would soon close the shore, and were, therefore, most anxious to continue our work.

On the 20th, therefore, the re-loading of the Fury commenced with recruited strength and spirits, such articles being in the first place selected for putting on board as were

essentially requisite for her re-equipment ; for it was my full determination, could we succeed in completing this, not to wait even for rigging a topmast, or getting a lower yard up, in the event of the ice coming in, but to tow her out among the ice, and there put everything sufficiently to rights for carrying her to some place of security. At the same time, the end of the sea-cable was taken on board the Fury, by way of offering some resistance to the ice, which was now more plainly seen, though still about five miles distant. A few hands were also spared, consisting chiefly of two or three convalescents, and some of the officers, to thrum a sail for putting under the Fury's keel ; for we were very anxious to relieve the men at the pumps, which constantly required the labour of eight to twelve hands to keep her free. In the course of the day, several heavy masses of ice came drifting by with a breeze from the N.E., which is here about two points upon the land, and made a considerable swell. One mass came in contact with our bergs, which, though

only held by the cables, brought it up in time to prevent mischief. By a long and hard day's labour, the people not going to rest till two o'clock on the morning of the 21st, we got about fifty tons' weight of coals and provisions on board the Fury, which, in case of necessity, we considered sufficient to give her stability. While we were thus employed, the ice, though evidently inclined to come in, did not approach us much; and it may be conceived with what anxiety we longed to be allowed one more day's labour, on which the ultimate saving of the ship might almost be considered as depending. Having hauled the ships out a little from the shore, and prepared the Hecla for casting by a spring at a moment's notice, all the people except those at the pumps were sent to rest, which, however, they had not enjoyed for two hours, when at four A.M. on the 21st, another heavy mass coming violently in contact with the bergs and cables, threatened to sweep away every remaining security. Our situation, with this additional strain, the mass which had disturbed us

fixing itself upon the weather-cable, and an increasing wind and swell setting considerably on the shore, became more and more precarious ; and indeed, under circumstances as critical as can well be imagined, nothing but the urgency and importance of the object we had in view—that of saving the Fury if she was to be saved—could have prevented my making sail, and keeping the Hecla under way till matters mended. More hawsers were run out, however, and enabled us still to hold on ; and after six hours of disturbed rest, all hands were again set to work to get the Fury's anchors, cables, rudder, and spars on board, these things being absolutely necessary for her equipment, should we be able to get her out. At two P.M. the crews were called on board to dinner, which they had not finished when several not very large masses of ice drove along the shore near us at a quick rate, and two or three successively coming in violent contact either with the Hecla or the bergs to which she was attached, convinced me that very little additional pres-

sure would tear everything away, and drive both ships on shore. I saw that the moment had arrived when the Hecla could no longer be kept in her present situation with the smallest chance of safety, and therefore immediately got under sail, despatching Captain Hoppner with every individual, except a few for working the ship, to continue getting the things on board the Fury, while the Hecla stood off and on. It was a quarter past three P.M. when we cast off, the wind then blowing fresh from the north-east, or about two points upon the land, which caused some surf on the beach. Captain Hoppner had scarcely been an hour on board the Fury, and was busily engaged in getting the anchors and cables on board, when we observed some large pieces of not very heavy ice closing in with the land near her; and at twenty minutes past four P.M. being an hour and five minutes after the Hecla had cast off, I was informed by signal that the Fury was on shore. Making a tack in-shore, but not being able, even under a press of canvass, to get very near

her, owing to a strong southerly current which prevailed within a mile or two of the land, I perceived that she had been apparently driven up the beach by two or three of the grounded masses forcing her onwards before them, and these, as well as the ship, seemed now so firmly aground as entirely to block her in on the sea-ward side. As the navigating of the Hecla with only ten men on board required constant attention and care, I could not at this time with propriety leave the ship to go on board the Fury. This, however, I the less regretted, as Captain Hoppner was thoroughly acquainted with all my views and intentions, and I felt confident that, under his direction, nothing would be left undone to endeavour to save the ship. I, therefore, directed him by telegraph, 'if he thought nothing could be done at present, to return on board with all hands until the wind changed;' for this alone, as far as I could see the state of the Fury, seemed to offer the smallest chance of clearing the shore, so as to enable us to proceed with our work, or to attempt haul-

ing the ship off the ground. About seven P.M. Captain Hoppner returned to the Hecla, accompanied by all hands, except an officer with a party at the pumps, reporting to me that the Fury had been forced aground by the ice pressing on the masses lying near her, and bringing home, if not breaking, the sea-ward anchor, so that the ship was soon found to have sewed from two to three feet fore and aft.

With the ship thus situated, and masses of heavy ice constantly coming in, it was Captain Hoppner's decided opinion, as well as that of Lieutenants Austin and Ross, that to have laid out another anchor to seaward would have only been to expose it to the same damage as there was reason to suppose had been incurred with the other, without the most distant hope of doing any service; especially as the ship had been driven on shore, by a most unfortunate coincidence, just as the tide was beginning to fall. Indeed, in the present state of the Fury, nothing short of chopping and sawing up a part of the ice under her stern, could

by any possibility have effected her release, even if she had been already afloat. Under such circumstances, hopeless as for the time every seaman will admit them to have been, Captain Hoppner judiciously determined to return for the present, as directed by my telegraphic communication; but being anxious to keep the ship free from water as long as possible, he left an officer and a small party of men to continue working at the pumps so long as a communication could be kept up between the Hecla and the shore. Every moment, however, decreased the practicability of doing this; and finding, soon after Captain Hoppner's return, that the current swept the Hecla a long way to the southward while hoisting up the boats, and that more ice was drifting in towards the shore, I was under the painful necessity of recalling the party at the pumps, rather than incur the risk, now an inevitable one, of parting company with them altogether. Accordingly Mr. Bird with the last of the people came on board at eight o'clock in the evening, having left

eighteen inches water in the well, and four pumps being requisite to keep her free. In three hours after Mr. Bird's return, more than half a mile of closely packed ice intervened between the Fury and the open water in which we were beating, and before the morning this barrier had increased to four or five miles in breadth.

We carried a press of canvass all night, with a fresh breeze from the north, to enable us to keep abreast of the Fury, which, on account of the strong southerly current we could only do by beating at some distance from the land. The breadth of the ice inshore continued increasing during the day, but we could see no end to the water in which we were beating, either to the southward or eastward. Advantage was taken of the little leisure now allowed us, to let the people mend and wash their clothes, which they had scarcely had a moment to do for the last three weeks. We also completed the thrumming of a second sail for putting under the Fury's keel, whenever we should be enabled to haul her off the shore. It

fell quite calm in the evening, when the breadth of the ice inshore had increased to six or seven miles. We did not, during the day, perceive any current setting to the southward, but in the course of the night we were drifted four or five leagues to the south-westward, in which situation we had a distinct view of a large extent of land, which had before been seen for the first time by some of our gentlemen who walked from where the Fury lay. This land trends very much to the westward, a little beyond the FURY POINT, the name by which I have distinguished that headland near which we had attempted to heave the Fury down, and which is very near the southern part of this coast seen in the year 1819. It then sweeps round into a large bay formed by a long low beach several miles in extent, afterwards joining higher land, and running in a south-easterly direction to a point which terminated our view of it in that quarter, and which bore from us S. 58° W. distant six or seven leagues. This headland I named CAPE GARRY, after my worthy friend

Nicholas Garry, Esq., one of the most active members of the Hudson's Bay Company, and a gentleman most warmly interested in everything connected with northern discovery. The whole of the bay, (which I named after my much esteemed friend, FRANCIS CRESSWELL, Esq.,) as well as the land to the southward, was free from ice for several miles, and to the southward and eastward scarcely any was to be seen, while a dark water-sky indicated a perfectly navigable sea in that direction ; but between us and the Fury there was a compact body of ice eight or nine miles in breadth. Had we now been at liberty to take advantage of the favourable prospect before us, I have little doubt we should without much difficulty have made considerable progress.

A southerly breeze enabling us to regain our northing, we ran along the margin of the ice, but were led so much to the eastward by it, that we could approach the ship no nearer than before during the whole day. She appeared to us at this distance to have a much greater heel than when the people

left her, which made us still more anxious to get near her. A south-west wind gave us hopes of the ice setting off from the land, but it produced no good effect during the whole of the 24th. We, therefore, beat again to the southward, to see if we could manage to get in with the land anywhere about the shores of the bay; but this was now impracticable, the ice being once more closely packed there. We could only wait, therefore, in patience, for some alteration in our favour. The latitude at noon was $72^{\circ} 34' 57''$, making our distance from the Fury twelve miles, which by the morning of the 25th, had increased to at least five leagues, the ice continuing to 'pack' between us and the shore. The wind, however, now gradually drew round to the westward, giving us hopes of a change, and we continued to ply about the margin of the ice, in constant readiness for taking advantage of any opening that might occur. It favoured us so much by streaming off in the course of the day, that by seven P.M. we had nearly reached a channel of clear

water, which kept open for seven or eight miles from the land. Being impatient to obtain a sight of the *Fury*, and the wind becoming light, Captain Hoppner and myself left the *Hecla* in two boats, and reached the ship at half-past nine, or about three-quarters of an hour before high water, being the most favourable time of tide for arriving to examine her condition.

We found her heeling so much outward, that her main channels were within a foot of the water; and the large floe-piece, which was still alongside of her, seemed alone to support her below water, and to prevent her falling over still more considerably. The ship had been forced much further up the beach than before, and she had now in her bilge above nine feet of water, which reached higher than the lower-deck beams. The first hour's inspection of the *Fury's* condition too plainly assured me that exposed as she was, and forcibly pressed up upon an open and stony beach, her holds full of water, and the damage of her hull to all appearance and in all probability more

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considerable than before, without any adequate means of hauling her off to sea-ward, or securing her from the further incursions of the ice, every endeavour of ours to get her off, or *if* got off, to float her to any known place of safety, would be at once utterly hopeless in itself, and productive of extreme risk to our remaining ship.

Being anxious, however, in a case of so much importance, to avail myself of the judgment and experience of others, I directed Captain Hoppner, in conjunction with Lieutenants Austin and Sherer, and Mr. Pulfer, carpenter, being the officers who accompanied me to the *Fury*, to hold a survey upon her, and to report their opinions to me. And to prevent the possibility of the officers receiving any bias from my own opinion, the order was given to them the moment we arrived on board the *Fury*.

Captain Hoppner and the other officers, after spending several hours in attentively examining every part of the ship, both within and without, and maturely weighing all the circumstances of her situation, gave it

as their opinion that it would be quite impracticable to make her sea-worthy, even if she could be hauled off, which would first require the water to be got out of the ship, and the holds to be once more entirely cleared. Mr. Pulfer, the carpenter of the *Fury*, considered that it would occupy five days to clear the ship of water; that if she were got off, all the pumps would not be sufficient to keep her free, in consequence of the additional damage she seemed to have sustained; and that, if even hove down, twenty days' work, with the means we possessed, would be required for making her sea-worthy. Captain Hoppner, and the other officers, were, therefore, of opinion, that an absolute necessity existed for abandoning the *Fury*. My own opinion being thus confirmed as to the utter hopelessness of saving her, and feeling more strongly than ever the responsibility which attached to me of preserving the *Hecla* unhurt, it was with extreme pain and regret that I made the signal for the *Fury's* officers and men to

be sent for their clothes, most of which had been put on shore with the stores.

The Hecla's bower anchor, which had been placed on the beach, was sent on board as soon as the people came on shore; but her remaining cable was too much entangled with the grounded ice to be disengaged without great loss of time. Having allowed the officers and men an hour for packing up their clothes, and what else belonging to them the water in the ship had not covered, the Fury's boats were hauled up on the beach, and at two A.M. I left her, and was followed by Captain Hoppner, Lieutenant Austin, and the last of the people in half an hour after.

The whole of the Fury's stores were of necessity left either on board her or on shore, every spare corner that we could find in the Hecla being now absolutely required for the accommodation of our double complement of officers and men, whose cleanliness and health could only be maintained by keeping the decks as clear and well ven-

tilated as our limited space would permit. The spot where the *Fury* was left is in latitude $72^{\circ} 42' 30''$; the longitude by chronometers is $91^{\circ} 50' 05''$; the dip of the magnetic needle $88^{\circ} 19' 22''$; and the variation $129^{\circ} 25'$ westerley.

When the accident first happened to the *Fury*, I confidently expected to have been able to repair her damages, in good time to take advantage of a large remaining part of the navigable season in the prosecution of the voyage; and while the clearing of the ship was going on with so much alacrity, and the repairs seemed to be within the reach of our means and resources, I still flattered myself with the same hope. But as soon as the gales began to destroy, with a rapidity of which we had before no conception, our sole defence from the incursions of the ice, as well as the only trust-worthy means we before possessed of holding the *Hecla* out for heaving the *Fury* down, I confess that the prospect of the necessity then likely to arise for removing her to some other station, was sufficient to shake every reasonable ex-

pectation I had hitherto cherished of the ultimate accomplishment of our object. Those expectations were now at an end. With a twelvemonth's provisions for both ship's companies, extending our resources only to the autumn of the following year, it would have been folly to hope for final success, considering the small progress we had already made, the uncertain nature of this navigation, and the advanced period of the present season. I was, therefore, reduced to the only remaining conclusion, that it was my duty, under all the circumstances of the case, to return to England, in compliance with the plain tenor of my instructions. As soon as the boats were hoisted up, therefore, and the anchor stowed, the ship's head was put to the north-eastward, with a light air off the land, in order to gain an offing before the ice should again set in-shore.

CHAPTER VII.

Some Remarks upon the Loss of the *Fury*—And on the Natural History, &c. of the Coast of North Somerset—Arrive at Neill's Harbour—Death of John Page—Leave Neill's Harbour—Re-cross the Ice in Baffin's Bay—Heavy Gales—Temperature of the Sea—Arrival in England.

THE accident which had now befallen the *Fury*, and which, when its fatal result was finally ascertained, at once put an end to every prospect of success in the main object of this voyage, is not an event which will excite surprise in the minds of those who are either personally acquainted with the true nature of this precarious navigation, or have had patience to follow me through the tedious and monotonous detail of our operations during seven successive summers. To any persons thus qualified to judge, it will be plain that an occurrence of this na-

ture was at all times rather to be expected than otherwise, and that the only real cause for wonder has been our long exemption from such a catastrophe. I can confidently affirm, and I trust that, on such an occasion, I may be permitted to make the remark, that the mere safety of the ships has never been more than a secondary object in the conduct of the expeditions under my command. To push forward while there was any open water to enable us to do so, has uniformly been our first endeavour; it has not been until the channel has actually terminated, that we have ever been accustomed to look for a place of shelter, to which the ships were then conducted with all possible despatch: and I may safely venture to predict that no ship acting otherwise will ever accomplish the North-west Passage. On numerous occasions, which will easily recur to the memory of those I have had the honour to command, the ships might easily have been placed among the ice, and left to drift with it, in comparative, if not absolute security, when the holding them on

has been preferred, though attended with hourly and imminent peril. This was precisely the case on the present occasion; the ships might certainly have been pushed into the ice a day or two, or even a week beforehand, and thus preserved from all risk of being forced on shore; but where they would have been drifted, and when they would have been again disengaged from the ice, or at liberty to take advantage of the occasional openings inshore, (by which alone the navigation of these seas is to be performed with any degree of certainty,) I believe it impossible for any one to form the most distant idea. Such, then, being the necessity for constant and unavoidable risk, it cannot reasonably excite surprise, that, on a single occasion, out of so many in which the same accident seemed, as it were, impending, it should actually have taken place.

The ice we met with after leaving Port Bowen, previously to the *Fury's* disaster, and for some days after, I consider to have been much the lightest as well as the most

broken we have ever had to contend with. During the time we were shut up at our last station near the Fury, one or two floes of very large dimensions drifted past us; and these were of that heavy 'hummocky' kind which we saw off Cape Kater in the beginning of August 1819. On the whole, however, Mr. Allison and myself had constant occasion to remark the total absence of floes, and the unusual lightness of the other ice. We thought, indeed, that this latter circumstance might account for its being almost incessantly in motion on this coast; for heavy ice, when once it is pressed home upon the shore, and has ceased to move, generally remains quiet until a change of wind or tide makes it slacken. But with lighter ice, the frequent breaking and doubling of the parts which sustain the strain, whenever any increase of pressure takes place, will set the whole body once more in motion till the space is again filled up. This was so often the case while our ships lay in the most exposed situations on this unsheltered coast, that we

were never relieved for a moment from the apprehension of some new and increased pressure.

The summer of 1825 was, beyond all doubt, the warmest and most favourable we had experienced since that of 1818. Not more than two or three days occurred, during the months of July and August, in which that heavy fall of snow took place which so commonly converts the aspect of nature in these regions, in a single hour, from the cheerfulness of summer into the dreariness of winter. Indeed, we experienced very little either of snow, rain, or fog: vegetation, wherever the soil allowed any to spring up, was extremely luxuriant and forward; a great deal of the old snow which had laid on the ground during the last season, was rapidly dissolving even early in August; and every appearance of nature exhibited a striking contrast with the last summer, while it seemed evidently to furnish an extraordinary compensation for its rigour and inclemency.

We have scarcely ever visited a coast,

on which so little of animal life occurs. For days together, only one or two seals, a single sea-horse, and now and then a flock of ducks were seen. I have already mentioned, however, as an exception to this scarcity of animals, the numberless kittiwakes which were flying about the remarkable spout of water; and we were one day visited, at the place where the *Fury* was left, by hundreds of white whales sporting about in the shoal water close to the beach. No black whales were ever seen on this coast. Two rein-deer were observed by the gentlemen who extended their walks inland; but this was the only summer in which we did not procure a single pound of venison. Indeed, the whole of our supplies obtained in this way during the voyage, including fish, flesh, and fowl, did not exceed twenty pounds per man.

During the time that we were made fast upon this coast, in which situation alone observations on current can be satisfactorily made, it is certain that the ice was setting to the southward, and sometimes at a rapid

rate, full seven days out of every ten on an average. Had I now witnessed this for the first time in these seas, I should probably have concluded that there was a constant southerly set at this season: but the experience we had before obtained of that superficial current which every breeze of wind creates in a sea encumbered with ice, coupled with the fact that while this set was noticed we had an almost continual prevalence of northerly winds, inclines me to believe that it was to be attributed, chiefly at least, to this circumstance; especially as, on one or two occasions, with rather a light breeze from the southward, the ice did set slowly in the opposite direction. It is not by a few unconnected observations that a question of this kind is to be settled, as the facts noticed during our detention near the west end of Melville Island in 1820 will abundantly testify; every light air of wind producing, in half an hour's time, an extraordinary change of current setting at an incredible rate along the land.

The existence of these variable and ir-

regular currents adds, of course, very much to the difficulty of determining the true direction of the flood-tide; the latter being generally much the weaker of the two, and therefore either wholly counteracted by the current, or simply tending to accelerate it. On this account, though I attended very carefully to the subject of the tides, I cannot pretend to say for certain from what direction the flood-tide comes on this coast: the impression on my mind, however, has been upon the whole in favour of its flowing from the southward. The time of high water on the full and change days of the moon, is from half past eleven to twelve o'clock, being nearly the same as at Port Bowen; but the tides are so irregular at times, that in the space of three days the retardation will occasionally not amount to an hour. I observed, however, that as the days of full and change, or of the moon's quarter approached, the irregularity was corrected, and the time rectified, by some tide of extraordinary duration. The mean rise and fall was about six feet.

The weather continuing nearly calm during the 26th, and the ice keeping at the distance of several miles from the land, gave us an opportunity of clearing our decks, and stowing the things belonging to the Fury's crew more comfortably for their accommodation and convenience. I now felt more sensibly than ever the necessity I have elsewhere pointed out, of both ships employed on this kind of service being of the same size, equipped in the same manner, and alike efficient in every respect. The way in which we had been able to apply every article for assisting to heave the Fury down, without the smallest doubt or selection as to size or strength, proved an excellent practical example of the value of being thus able, at a moment's warning, to double the means and resources of either ship in case of necessity. In fact, by this arrangement, nothing but a harbour to secure the ships was wanted, to have completed the whole operation in as effectual a manner as in a dock-yard; for not a shore, or out-rigger, or any other precaution was omitted,

that is usually attended to on such occasions, and all as good and effective as could anywhere have been desired. The advantages were now scarcely less conspicuous in the accommodation of the officers and men, who in a short time became little less comfortable than in their own ship; whereas, in a smaller vessel, comfort, to say nothing of health, would have been quite out of the question. Having thus experienced the incalculable benefit of the establishment composing this expedition, I am anxious to repeat my conviction of the advantages that will always be found to attend it, in the equipment of any two ships intended for discovery.

A little snow, which had fallen in the course of the last two or three days, now remained upon the land, lightly powdering the higher parts, especially those having a northern aspect, and creating a much more wintry sensation than the large broad patches or drifts, which, on all tolerably high land in these regions, remain undissolved during the whole of each successive summer. With the exception of a few such patches here

and there, the whole of this coast was now free from snow before the middle of August.

A breeze from the northward freshening up strong on the 27th, we stretched over to the eastern shore of Prince Regent's Inlet, and this with scarcely any obstruction from ice. We could, indeed, scarcely believe this the same sea which, but a few weeks before, had been loaded with one impenetrable body of closely-packed ice from shore to shore, and as far as the eye could discern to the southward. We found this land rather more covered with the newly-fallen snow, than that to the westward; but there was no ice, except the grounded masses, anywhere along the shore. Having a great deal of heavy work to do in the re-stowage of the holds, which could not well be accomplished at sea, and also a quantity of water to fill for our increased complement, I determined to take advantage of our fetching the entrance of Neill's Harbour to put in here, in order to prepare the ship completely for crossing the Atlantic. I was desirous also of ascertaining the depth of

water in this place, which was wanting to complete Lieutenant Sherer's survey of it. At one P.M. therefore, after communicating to the officers and ships' companies my intention to return to England, I left the ship, accompanied by Lieutenant Sherer in a second boat, to obtain the necessary soundings for conducting the ship to the anchorage, and to lay down a buoy in the proper berth. Finding the harbour an extremely convenient one for our purpose, we worked the ship in, and at four P.M. anchored in thirteen fathoms, but afterwards shifted out to eighteen, on a bottom of soft mud. Almost at the moment of our dropping the anchor, John Page, seaman of the *Fury*, departed this life : he had for several months been affected with a scrofulous disorder, and had been gradually sinking for some time.

The funeral of the deceased being performed, we immediately commenced landing the casks and filling water; but notwithstanding the large streams which, a short time before, had been running into the harbour, we could hardly obtain enough for

our purpose by sinking a cask with holes in it. I have no doubt that this rapid dissolution of all the snow on land so high as this, was the result of an unusually warm summer. This work, together with the entire re-stowage of all the holds, occupied the whole of the 29th and 30th, during which time Lieutenant Sherer was employed in completing the survey of the harbour, more especially the soundings, which the presence of ice had before prevented. These arrangements had just been completed, when the north easterly wind died away, and was succeeded, on the morning of the 31st, by a light air from the north-west. As soon as we had sent to ascertain that the sea was clear of ice on the outside, and that the breeze which blew in the harbour was the true one, we weighed and stood out, and before noon had cleared the shoals at the entrance.

Neill's Harbour, the only one on this eastern coast of Prince Regent's Inlet, except Port Bowen, to which it is far superior, corresponds with one of the apparent open-

ings seen at a distance in 1819, and marked on the chart of that voyage as a 'valley or bay.' We found it not merely a convenient place of shelter, but a most excellent harbour, with sufficient space for a great number of ships, and holding ground of the best quality, consisting of a tenacious mud of a greenish colour, in which the flukes of an anchor are entirely imbedded. A great deal of the anchoring ground is entirely land-locked, and some shoal points which narrow the entrance would serve to break off any heavy sea from the eastward. The depth of water in most parts is greater than could be wished, but several good berths are pointed out in the accompanying survey made by Lieutenant Sherer. The beach on the west side is a fine bold one, with four fathoms within twenty yards of low-water mark, and consists of small pebbles of limestone. The formation of the rocks about the harbour is so similar to that of Port Bowen, that no description of them is necessary. The harbour may best be known by its latitude ; by the very remarkable flat-

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topped hill eight miles south of it, which I have named after Lieutenant Sherer, who observed its latitude; by the high cliffs on the south side of the entrance, and the comparative low land on the north. The high land is the more peculiar, as consisting of that very regular horizontal stratification appearing to be supported by buttresses, which characterizes a large portion of the western shore of Prince Regent's Inlet, but is not seen on any part of this coast so well marked as here. It is a remarkable circumstance, and such as, I believe, very rarely occurs, that from the point of this land forming the entrance of the harbour to the southward, and where the cliffs rise at once to perpendicular height of not less than five or six hundred feet, a shoal stretches off to the distance of one-third of a mile, having from three to eight fathoms upon it. I have reason to think, indeed, that there is not more than from ten to fourteen fathoms, anywhere across between this and the low point on the other side, thus forming a sort of bar, though the depth of water is much

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more than sufficient for any ship to pass over. The latitude of Neill's Harbour is $73^{\circ} 09' 08''$; the longitude by chronometers $89^{\circ} 01' 20''.8$; the dip of the magnetic needle $88^{\circ} 08'.25$, and the variation $118^{\circ} 48'$ westerly.

I have been thus particular in describing Neill's Harbour, because I am of opinion that at no very distant period the whalers may find it of service. The western coast of Baffin's Bay, now an abundant fishery, will probably, like most others, fail in a few years; for the whales will always, in the course of time, leave a place where they continue, year after year, to be molested. In that case, Prince Regent's Inlet will undoubtedly become a rendezvous for our ships, as well on account of the numerous fish there, as the facility with which any ship, having once crossed the ice in Baffin's Bay, is sure to reach it during the months of July and August. We saw nine or ten black whales the evening of our arrival in Neill's Harbour; these, like most observed hereabouts, and I believe on the western

coast of Baffin's Bay generally, were somewhat below the middle size.

Finding the wind at north-west in Prince Regent's Inlet, we were barely able to lie along the eastern coast. As the breeze freshened in the course of the day, a great deal of loose ice in extensive streams and patches came drifting down from the Leopold Islands, occasioning us some trouble in picking our way to the northward. By carrying less of sail, however, we were enabled, towards night, to get into clearer water, and by four A.M. on the 1st of September, having beat to windward of a compact body of ice which had fixed itself on the lee shore about Cape York, we soon came into a perfectly open sea in Barrow's Strait, and were enabled to bear away to the eastward. We now considered ourselves fortunate in having got out of harbour when we did, as the ice would probably have filled up every inlet on that shore in a few hours after we left it.

The wind heading us from the eastward on the 2d, with fog and wet weather,

obliged us to stretch across the Sound, in doing which we had occasion to remark the more than usual number of icebergs that occurred in this place, which was abreast of Navy Board Inlet. Many of these were large and of the long flat kind, which appear to me to be peculiar to the western coast of Baffin's Bay. I have no doubt that this more than usual quantity of icebergs in Sir James Lancaster's Sound was to be attributed to the extraordinary prevalence and strength of the easterly winds during this summer, which would drive them from the eastern parts of Baffin's Bay. They now occurred in the proportion of at least four for one that we had ever before observed here.

Being again favoured with a fair wind, we now stretched to the eastward, still in an open sea; and our curiosity was particularly excited to see the present situation of the ice in the middle of Baffin's Bay, and to compare it with that in 1824. This comparison we were enabled to make the more fairly, because the season at which we

might expect to come to it coincided, within three or four days, with that in which we left it the preceding year. The temperature of the sea-water now increased to 38° , soon after leaving the Sound, where it had generally been from 33° to 35° , whereas at the same season last year it rose no higher than 32° anywhere in the neighbourhood, and remained even so high as that only for a very short time. This circumstance seemed to indicate the total absence of ice from those parts of the sea which had last autumn been wholly covered by it. Accordingly, on the 5th, being thirty miles beyond the spot in which we had before contended with numerous difficulties from ice, not a piece was to be seen, except one or two solitary bergs ; and it was not till the following day in latitude $72^{\circ} 45'$, and longitude $64^{\circ} 44'$, or about one hundred and twenty-seven miles to the eastward of where we made our escape on the 9th of September, 1824, that we fell in with a body of ice so loose and open as scarcely to oblige us to alter our course for it. At three P.M.

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on the 7th, being in latitude $72^{\circ} 30'$, and longitude $60^{\circ} 05'$, and having in the course of eighty miles that we had run through it, only made a single tack, we came to the margin of the ice, and got into an open sea on its eastern side. In the whole course of this distance the ice was so much spread, that it would not, if at all closely 'packed,' have occupied one-third of the same space. There were at this time thirty-nine bergs in sight, and some of them certainly not less than two hundred feet in height.

The narrowness and openness of the ice at this season, between the parallels of 73° and 74° , when compared with its extent and closeness about the same time the preceding year, was a decided confirmation, if any were wanting, that the summer of 1824 was extremely unfavourable for penetrating to the westward about the usual latitudes. How it had proved elsewhere we could not of course conjecture, till on the 8th, being in latitude $71^{\circ} 55'$, longitude $60^{\circ} 30'$, and close to the margin of the ice, we fell in with the Alfred, Ellison, and Elizabeth,

whalers of Hull, all running to the northward, even at this season, to look for whales. From them we learned that the Ellison was one of the two ships we saw, when beset in the 'pack' on the 18th July, 1824; and that they were then, as we had conjectured, on their return from the northward, in consequence of having failed in effecting a passage to the westward. The master of the Ellison informed us that, after continuing their course along the margin of the ice to the southward, they at length passed through it to the western land without any difficulty, in the latitude of 68° to 69° . Many other ships had also crossed about the same parallels, even in three or four days; but none, it seemed, had succeeded in doing so, as usual, to the northward. Thus it plainly appeared (and I need not hesitate to confess that to me the information was satisfactory) that our bad success in pushing across the ice in Baffin's Bay in 1824, had been caused by circumstances neither to be foreseen nor controlled; namely, by a particular position of the ice,

which, according to the best information I have been able to collect, has never before occurred during the only six years that it has been customary for the whalers to cross this ice at all, and which, therefore, in all probability, will seldom occur again.

If we seek for a cause for the ice thus hanging with more than ordinary tenacity to the northward, the comparative coldness of the season indicated by our meteorological observations may perhaps be considered sufficient to furnish it. For as the annual clearing of the northern parts of Baffin's Bay depends entirely on the time of the disruption of the ice, and the rate at which it is afterwards drifted to the southward by the excess of northerly winds, any circumstance tending to retain it in the bays and inlets to a later period than usual, and subsequently to hold it together in large floes, which drive more slowly than smaller masses, would undoubtedly produce the effect in question. There is, at all events, one useful practical inference to be drawn from what has been stated, which is, that,

though perhaps in a considerable majority of years a northern latitude may prove the most favourable for crossing in, yet seasons will sometimes intervene, in which it will be a matter of great uncertainty whereabouts to make the attempt with the best hope of success.

As the whaling-ships were not homeward bound, having as yet had indifferent success in the fishery, I did not consider it necessary to send despatches by them. After an hour's communication with them, and obtaining such information of a public nature as could not fail to be highly interesting to us, we made sail to the southward; while we observed them lying to for some time after, probably to consult respecting the unwelcome information with which we had furnished them as to the whales, not one of which, by some extraordinary chance, we had seen since leaving Neill's Harbour. As this circumstance was entirely new to us, it seems not unlikely that the whales are already beginning to shift their ground, in consequence of the increased attacks which

have been made upon them of late years in that neighbourhood.

On the 10th we had an easterly wind, which gradually freshening to a gale, drew up the Strait from the southward, and blew strong for twenty-four hours from that quarter. In the course of the night, and while lying-to under the storm-sails, an iceberg was discovered by its white appearance under our lee. The main-topsail being thrown aback, we were enabled to drop clear of this immense body, which would have been a dangerous neighbour in a heavy sea-way. The wind moderated on the 11th, but on the following day another gale came on, which for nine or ten hours blew in most tremendous gusts from the same quarter, and raised a heavy sea. We happily came near no ice during the night, or it would scarcely have been possible to keep the ship clear of it. It abated after daylight on the 13th, but continued to blow an ordinary gale for twelve hours longer. It was remarkable that the weather was extremely clear overhead during the whole of this last

gale, which is very unusual here with a southerly wind. Being favoured with a northerly breeze on the 15th, we began to make some way to the southward. From nine A.M. to one P.M., a change of temperature in the sea water took place from 37° to 33° . This circumstance seemed to indicate our approach to some ice projecting to the eastward beyond the strait and regular margin of the 'pack' which was at this time not in sight. The indication proved correct and useful; for after passing several loose pieces of ice during the night, on the morning of the 15th, just at day-break, we came to a considerable body of it, through which we continued to run to the southward. We were now in latitude $68^{\circ} 56'$, and in longitude $58^{\circ} 27'$, in which situation a great many bergs were in sight, and apparently aground. We ran through this ice, which was very heavy, but loose and much broken up, the whole day; when, having sailed fifty-three miles S.S.E., and appearances being the same as ever, we hauled to the E.S.E., to endeavour to get

clear before dark, which we were just enabled to effect after a run of thirty miles in that direction, and then bore up to the southward. After this we saw but one iceberg, and one heavy loose piece, previous to our clearing Davis's Strait.

On the 17th at noon we had passed to the southward of the Arctic Circle, and from this latitude to that of about 58° , we had favourable winds and weather; but we remarked on this, as on several other occasions during this season, that a northerly breeze, contrary to ordinary observation, brought more moisture with it than any other. In the course of this run, we also observed more drift-wood than we had ever done before, which I thought might possibly be owing to the very great prevalence of easterly winds this season driving it further from the coast of Greenland than usual.

On the morning of the 24th, notwithstanding the continuance of a favourable breeze, we met, in the latitude of $58\frac{1}{2}^{\circ}$, so heavy a swell from the north-eastward as to

make the ship labour violently for four-and-twenty hours. The northerly wind then dying away was succeeded by a light air from the eastward with constant rain. A calm then followed for several hours, causing the ship to roll heavily in the hollow of the sea. On the morning of the 25th we had again an easterly wind, which in a few hours reduced us to the close-reefed topsails and reefed courses. At eight P.M. it freshened to a gale, which brought us under the main-topsail and storm-staysails, and at seven the following morning it increased to a gale of such violence from N.E. b.N. as does not very often occur at sea in these latitudes. The gusts were at times so tremendous as to set the sea quite in a foam, and threatened to tear the sails out of the bolt-ropes. It abated a little for four hours in the evening, but from nine P.M. till two the following morning blew with as great violence as before, with a high sea, and very heavy rain; constituting altogether as inclement weather as can well be conceived, for about eighteen hours. The wind gradually

drew to the westward, with dry weather, after the gale began to abate, and at six A.M. we were enabled to bear up and run to the eastward with a strong gale at N.W.

The indications of the barometer previous to and during this gale deserve to be noticed, because it is only about Cape Farewell that, in coming from the northward down Davis's Strait, this instrument begins to speak a language which has ever been intelligible to us *as a weather glass*. As it is also certain that a 'stormy spirit' resides in the neighbourhood of this headland, no less than in that of more famed ones to the south, it may become a matter of no small practical utility for ships passing it, especially in the autumn, to attend to the oscillations of the mercurial column. It is with this impression alone, that I have detailed the otherwise uninteresting circumstances of the inclement weather we now experienced here, and which was accompanied by the following indications of the barometer. On the 24th, notwithstanding the change of wind from north to east, the mercury rose

from 29.51 on that morning, to 29.72 at three A.M. the following day, but fell to 29.39 by nine P.M. with the strong but not violent breeze then blowing. After this it continued to descend very gradually, and had reached 28.84, which was its minimum, at three P.M. on the 26th, after which it continued to blow tremendously hard for eleven or twelve hours; the mercury uniformly though slowly ascending to 28.95 during that interval, and afterwards to 29.73 as the weather became moderate and fine in the course of the three following days.

After this gale the atmosphere seemed to be quite cleared, and we enjoyed a week of such remarkably fine weather as seldom occurs at this season of the year. We had then a succession of strong southerly winds, but were enabled to continue our progress to the eastward, so as to make Mould Head, towards the north-west end of the Orkney Islands, at day-light on the 10th of October; and the wind becoming more westerly, we rounded North Ronaldsha Island at

noon, and then shaped a course for Buchan-
ness.

As we approached the Orkneys, I demanded from the officers, in compliance with my instructions from my Lords Commissioners of the Admiralty, all the logs, journals, drawings and charts, which had been made during the voyage. After rounding the north end of the Orkneys on the 10th of October, we were, on the 12th, met by a strong southerly wind, when off Peterhead. I, therefore, immediately landed (for the second time) at that place, and setting off without delay for London, arrived at the Admiralty on the 16th.

Notwithstanding the ill success which had attended our late efforts, it may in some degree be imagined what gratification I experienced at this time in seeing the whole of the Hecla's crew, and also those of the Fury (with the two exceptions already mentioned), return to their native country in as good health as when they left it eighteen months before. The Hecla arrived at Sheerness on the 20th of October, where she was

detained for a few days for the purpose of Captain Hoppner, his officers, and ship's company, being put upon their trial (according to the customary and indispensable rule in such cases) for the loss of the *Fury*: when, it is scarcely necessary to add, they received an honourable acquittal. The *Hecla* then proceeded to Woolwich, and was paid off on the 21st of November.

END OF THE THIRD VOYAGE.

ACCOUNT
OF
THE ESQUIMAUX
OF
MELVILLE PENINSULA AND THE
ADJOINING ISLANDS:
MORE PARTICULARLY OF WINTER ISLAND AND
IGLOOLIK.

ACCOUNT
OF
THE ESQUIMAUX.

THE number of individuals composing the tribe of Esquimaux assembled at Winter Island and Igloolik was two hundred and nineteen, of whom sixty-nine were men, seventy-seven women, and seventy-three children. Two or three of the men, from their appearance and infirmities, as well as from the age of their children, must have been near seventy; the rest were from twenty to about fifty. The majority of the women were comparatively young, or from twenty to five and thirty, and three or four only seemed to have reached sixty. Of the children, about one-third were under four years old, and the rest from that age up-

wards to sixteen or seventeen. Out of one hundred and fifty-five individuals who passed the winter at Igloolik, we knew of eighteen deaths and of only nine births.

The stature of these people is much below that of Europeans in general. One man, who was unusually tall, measured five feet ten inches, and the shortest was only four feet eleven inches and a half. Of twenty individuals of each sex measured at Igloolik, the range was—

Men.—From 5 ft. 10 in. to 4 ft. 11 in.

The average height, 5 ft. $5\frac{1}{3}$ in.

Women.—From 5 ft. $3\frac{1}{2}$ in. to 4 ft. $8\frac{3}{4}$ in.

The average height, 5 ft. $0\frac{1}{2}$ in.

The women, however, generally appear shorter than they really are, both from the unwieldy nature of their clothes, and from a habit, which they early acquire, of stooping considerably forward in order to balance the weight of the child they carry in their hood.

In their figure they are rather well formed than otherwise. Their knees are indeed rather large in proportion, but their legs

are straight, and the hands and feet, in both sexes, remarkably small. The younger individuals were all plump, but none of them corpulent; the women inclined the most to this last extreme, and their flesh was, even in the youngest individuals, quite loose and without firmness.

Their faces are generally round and full, eyes small and black, nose also small and sunk far in between the cheek bones, but not much flattened. It is remarkable that one man *Tē-ā*, his brother, his wife, and two daughters had good Roman noses, and one of the latter was an extremely pretty young woman. Their teeth are short, thick, and close, generally regular, and in the young persons almost always white. The elderly women were still well furnished in this way, though their teeth were usually a good deal worn down, probably by the habit of chewing the seal-skins for making boots.

In the young of both sexes the complexion is clear and transparent, and the skin smooth. The colour of the latter,

when divested of oil and dirt, is scarcely a shade darker than that of a deep brunette, so that the blood is plainly perceptible when it mounts into the cheeks. In the old folks, whose faces were much wrinkled, the skin appears of a much more dingy hue, the dirt being less easily and therefore less frequently dislodged from them.

Besides the smallness of their eyes, there are two peculiarities in this feature common to almost all of them. The first consists in the eye not being horizontal as with us, but coming much lower at the end next the nose than at the other. Of the second an account, by Mr. Edwards, will be given in another place.

By whatever peculiarities, however, they may in general be distinguished, they are by no means ill-looking people; and there were among them three or four grown-up persons of each sex who, when divested of their skin-dresses, their tattooing, and above all of their dirt, might have been considered pleasing-looking, if not handsome, people in any town in Europe. This remark applies

more generally to the children also ; several of whom had complexions nearly as fair as that of Europeans, and whose little bright black eyes gave a fine expression to their countenances.

The hair both of males and females is black, glossy, and straight. The men usually wear it rather long, and allow it to hang about their heads in a loose and slovenly manner. A few of the younger men, and especially those who had been about the shores of the Welcome, had it cut straight upon the forehead, and two or three had a circular patch upon the crown of the head, where the hair was quite short and thin, somewhat after the manner of Capuchin friars. The women pride themselves extremely on the length and thickness of their hair ; and it was not without reluctance on their part, and the same on that of their husbands, that they were induced to dispose of any of it. When inclined to be neat they separate their locks into two equal parts, one of which hangs on each side of their heads and in front of their shoulders. To stiffen and bind these they use a narrow

strap of deer-skin, attached at one end to a round piece of bone, fourteen inches long, tapered to a point, and covered over with leather. This looks like a little whip, the handle of which is placed up and down the hair, and the strap wound round it in a number of spiral turns, making the tail, thus equipped, very much resemble one of those formerly worn by our seamen. The strap of this article of dress, which is altogether called a *tōglēgǎ*, is so made from the deer-skin as to shew, when bound round the hair, alternate turns of white and dark fur, which give it a very neat and ornamental appearance. On ordinary occasions it is considered slovenly not to have the hair thus dressed, and the neatest of the women never visited the ships without it. Those who are less nice dispose their hair into a loose plait on each side, or have one *togleega* and one plait; and others again, wholly disregarding the business of the toilette, merely tucked their hair in under the breast of their jackets. Some of the women's hair was tolerably fine, but would not in this

respect bear a comparison with that of an Englishwoman. In both sexes it is full of vermin, which they are in the constant habit of picking out and eating; a man and his wife will sit for an hour together performing for each other that friendly office. The women have a comb, which, however, seems more intended for ornament than use, as we seldom or never observed them comb their hair. When a woman's husband is ill she wears her hair loose, and cuts it off as a sign of mourning if he dies; a custom agreeing with that of the Greenlanders *. It is probable also, from what has been before said, that some opprobrium is attached to the loss of a woman's hair when no such occasion demands this sacrifice †. The men wear the hair on the upper lip and

* Crantz's History of Greenland, London edition, 1767, i. 138, 240. In the following account of the Esquimaux, references will occasionally be made to Crantz and Egede, as well to point out any dissimilarity, as any resemblance, between these people and the nations of Greenland.

† Id. *ibid.*

chin, from an inch to an inch and a half in length, and some were distinguished by a little tuft between the chin and lower lip.

The dresses both of male and female are composed almost entirely of deer-skin, in which respect they differ from those of most Esquimaux before met with. In the form of the dress they vary very little from those so repeatedly described. The jacket, which is close, but not tight, all round, comes as low as the hips, and has sleeves reaching to the wrist. In that of the women the tail or flap behind is very broad and so long as almost to touch the ground ; while a shorter and narrower one before reaches half way down the thigh. The men have also a tail in the hind part of their jacket, but of smaller dimensions ; but before, it is generally straight, or ornamented by a single scollop. The hood of the jacket, which forms the only covering for their head, is much the largest in that of the women, for the purpose of holding a child. The back of the jacket also bulges out in the middle to give the child a footing, and a strap or

girdle below this, and secured round the waist by two large wooden buttons in front, prevents the infant from falling through, when, the hood being in use, it is necessary thus to deposit it. The sleeves of the women's jackets are made more square and loose about the shoulders than those of the men, for the convenience, as we understood, of more readily depositing a child in the hood; and they have a habit of slipping their arms out of them, and keeping them in contact with their bodies, for the sake of warmth, just as we do with our fingers in our gloves in very cold weather.

In winter every individual, when in the open air, wears two jackets, of which the outer one (*Cāppě tēggă*) has the hair outside, and the inner one (*Attēēga*) next the body. Immediately on entering the hut the men take off their outer jacket, beat the snow from it, and lay it by. The upper garment of the females, besides being cut according to a regular and uniform pattern, and sewed with exceeding neatness, which is the case with all the dresses of these

people, has also the flaps ornamented in a very becoming manner by a neat border of deer-skin, so arranged as to display alternate breadths of white and dark fur. This is, moreover, usually beautified by a handsome fringe, consisting of innumerable long narrow threads of leather hanging down from it. This ornament is not uncommon also in the outer jackets of the men. When seal-hunting, they fasten up the tails of their jackets with a button behind.

Their breeches, of which in winter they also wear two pair, and similarly disposed as to the fur, reach below the knee, and fasten with a string drawn tight round the waist. Though these have little or no waistband, and do not come very high, the depth of the jackets, which considerably overlap them, serves very effectually to complete the covering of the body.

Their legs and feet are so well clothed, that no degree of cold can well affect them. When a man goes on a sealing excursion, he first puts on a pair of deer-skin boots (*Allëkteegä*) with the hair inside and reach-

ing to the knee, where they tie. Over these come a pair of shoes of the same material; next a pair of dressed seal-skin boots perfectly water-tight; and over all a corresponding pair of shoes, tying round the instep. These last are made just like the mocassin of a North American Indian, being neatly crimped at the toes, and having several serpentine pieces of hide sewn across the sole to prevent wearing. The water-tight boots and shoes are made of the skin of the small seal (*neitiek*), except the soles, which consist of the skin of the large seal (*oguke*); this last is also used for their fishing lines. When the men are not prepared to encounter wet, they wear an outer boot of deer-skin with the hair outside.

The inner boot of the women, unlike that of the men, is loose round the leg, coming as high as the knee-joint behind, and in front carried up, by a long pointed flap, nearly to the waist, and there fastened to the breeches. The upper boot, with the hair as usual outside, corresponds with the other in shape, except that it is much more

full, especially on the outer side, where it bulges out so preposterously as to give the women the most awkward, bow-legged appearance imaginable. This superfluity of boot has probably originated in the custom, still common among the native women of Labrador, of carrying their children in them. We were told that these women sometimes put their children there to sleep; but the custom must be rare among them, as we never saw it practised. These boots, however, form their principal pockets, and pretty capacious ones they are. Here, also, as in the jackets, considerable taste is displayed in the selection of different parts of the deer-skin, alternate strips of dark and white being placed up and down the sides and front by way of ornament. The women also wear a mocassin (*Itteegĕgă*) over all, in the winter time.

The Esquimaux, when thus equipped, may at all times bid defiance to the rigour of this inhospitable climate; and nothing can exceed the comfortable appearance which they exhibit even in the most inclement

weather. When seen at a little distance, the white rim of their hoods, whitened still more by the breath collecting and freezing upon it, and contrasted with the dark faces which they encircle, render them very grotesque objects; but while the skin of their dresses continues in good condition, they always look clean and wholesome.

To judge by the eagerness with which the women received our beads, especially small white ones, as well as any other article of that kind, we might suppose them very fond of personal ornament. Yet of all that they obtained from us in this way at Winter Island, scarcely anything ever made its appearance again during our stay there, except a ring or two on the finger, and some bracelets of beads round the wrist; the latter of these was probably considered as a charm of some kind or other. We found among them, at the time of our first intercourse, a number of small black and white glass beads, disposed alternately on a string of sinew, and worn

in this manner. They would also sometimes hang a small bunch of these, or a button or two, in front of their jackets and hair; and many of them, in the course of the second winter, covered the whole front of their jackets with the beads they received from us.

The most common ornament of this kind, exclusively their own, consists in strings of teeth, sometimes many hundreds in number, which are either attached to the lower part of the jacket like the fringe before described, or fastened as a belt round the waist. Most of these teeth are of the fox and wolf, but some also belonged to the musk-ox, (*ōōmīngmūk*), of which animal, though it is never seen at Winter Island, we procured from the Esquimaux several of the grinders and a quantity of the hair and skin. The bones of the *kāblěě-ārīoo*, supposed to be the wolverene, constitute another of their ornaments; and it is more than probable that all these possess some imaginary qualities, as specific charms for various pur-

poses *. The most extraordinary amulet, if it be one, of this kind, was a row of foxes' noses attached to the fore-part of a woman's jacket like a tier of black buttons. I purchased from Iligliuk a semicircular ornament of brass, serrated at the upper edge and brightly polished, which she wore over her hair in front and which was very becoming. The handsomest thing of this kind, however, was understood to be worn on the head by men, though we did not learn on what occasions. It consisted of a band two inches in breadth, composed of several strips of skin sewn together, alternately black and yellow; near the upper edge, some hair was artfully interwoven, forming with the skin a very pretty chequer-work: along the lower edge were suspended more than a hundred small teeth, principally of the deer, neatly fastened by small double tags of sinew and forming a very appropriate fringe.

Among their personal ornaments must

* Egede's Description of Greenland, London Edition, 1745, p. 194.

also be reckoned that mode of marking the body, called tattooing, which, of the customs not essential to the comfort or happiness of mankind, is perhaps the most extensively practised throughout the world. Among these people it seems to be an ornament of indispensable importance to the women, not one of them being without it. The operation is performed about the age of ten or sometimes earlier, and has nothing to do with marriage, except that, being considered in the light of a personal charm, it may serve to recommend them as wives. The parts of the body thus marked are their faces, arms, hands, thighs, and in some few women the breasts, but never the feet as in Greenland *. The operation, which by way of curiosity most of our gentlemen had practised on their arms, is very expeditiously managed by passing a needle and thread, the latter covered with lamp-black and oil †, under the epidermis, according to a pattern previously marked out upon the skin. Se-

* Crantz, i. 138.

† Id. Ibid.

veral stitches being thus taken at once, the thumb is pressed upon the part, while the thread is drawn through, by which means the colouring matter is retained, and a permanent dye of a blue tinge imparted to the skin. A woman expert at this business will perform it very quickly and with great regularity, but seldom without drawing blood in many places, and occasioning some inflammation. Where so large a portion of the surface of the body is to be covered, it must become a painful as well as tedious process, especially as, for want of needles, they often use a strip of whalebone as a substitute. For those parts where a needle cannot conveniently be passed under the skin, they use the method by puncture, which is common in other countries, and by which our seamen frequently mark their hands and arms. Several of the men were marked on the back part of their hands; and with them we understood it to be considered as a *souvenir* of some distant or deceased person who had performed it.

In their winter-habitations, I have before

mentioned that the only materials employed are snow and ice; the latter being made use of for the windows alone. The work is commenced by cutting from a drift of hard and compact snow a number of oblong slabs, six or seven inches thick and about two feet in length, and laying them edgewise on a level spot, also covered with snow, in a circular form and of a diameter from eight to fifteen feet, proportioned to the number of occupants the hut is to contain. Upon this as a foundation is laid a second tier of the same kind, but with the pieces inclining a little inwards, and made to fit closely to the lower slabs and to each other, by running a knife adroitly along the under part and sides. The top of this tier is now prepared for the reception of a third, by squaring it off smoothly with a knife, all which is dexterously performed by one man standing within the circle and receiving the blocks of snow from those employed in cutting them without. When the wall has attained a height of four or five feet, it leans so much inward as to appear as if about to

tumble every moment, but the workmen still fearlessly lay their blocks of snow upon it, until it is too high any longer to furnish the materials to the builder in this manner. Of this he gives notice by cutting a hole close to the ground in that part where the door is intended to be, which is near the south side, and through this the snow is now passed. Thus they continue till they have brought the sides nearly to meet in a perfect and well-constructed dome, sometimes nine or ten feet high in the centre; and this they take considerable care in finishing, by fitting the last block or *key-stone* very nicely in the centre, dropping it into its place from the outside though it is still done by the man within. The people outside are in the mean time occupied in throwing up snow with the *pōoällērāy*, or snow-shovel, and in stuffing in little wedges of snow where holes have been accidentally left.

The builder next proceeds to let himself out by enlarging the proposed door-way into the form of a Gothic arch three feet



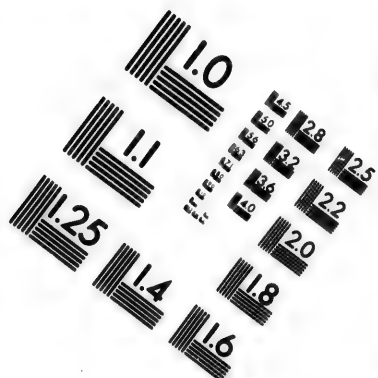
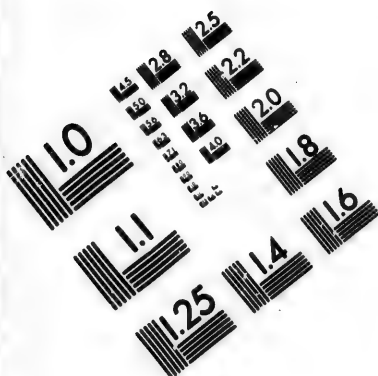
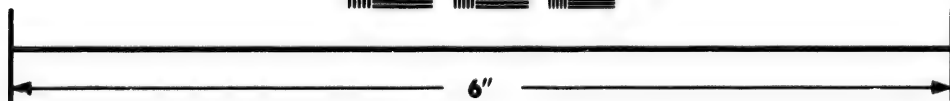
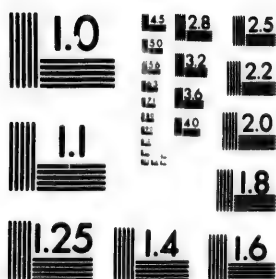


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high, and two feet and a half wide at the bottom, communicating with which they construct two passages, each from ten to twelve feet long and from four to five feet in height, the lowest being that next the hut. The roofs of these passages are sometimes arched, but more generally made flat by slabs laid on horizontally. In first digging the snow for building the hut, they take it principally from the part where the passages are to be made, which purposely brings the floor of the latter considerably lower than that of the hut, but in no part do they dig till the bare ground appears.

The work just described completes the walls of a hut, if a single apartment only be required; but if, on account of relationship, or from any other cause, several families are to reside under one roof, the passages are made common to all, and the first apartment (in that case made smaller) forms a kind of ante-chamber, from which you go through an arched door-way five feet high into the inhabited apartments. When there are three

of these, which is generally the case, the whole building, with its adjacent passages, forms a tolerably regular cross.

For the admission of light into the huts a round hole is cut on one side of the roof of each apartment, and a circular plate of ice, three or four inches thick and two feet in diameter, let into it. The light is soft and pleasant like that transmitted through ground glass, and it is quite sufficient for every purpose. When after some time these edifices become surrounded by drift, it is only by the windows, as I have before remarked, that they could be recognised as human habitations. It may perhaps then be imagined how singular is their external appearance at night, when they discover themselves only by a circular disk of light transmitted through the windows from the lamps within.

The next thing to be done is to raise a bank of snow two and a half feet high, all round the interior of each apartment, except on the side next the door. This bank, which is neatly squared off, forms their

beds and fire-place, the former occupying the sides and the latter the end opposite the door. The passage left open up to the fire-place is between three and four feet wide. The beds are arranged by first covering the snow with a quantity of small stones, over which are laid their paddles, tent-poles, and some blades of whalebone : above these they place a number of little pieces of net-work, made of thin slips of whalebone, and lastly a quantity of twigs of birch * and of the *andromeda tetragona*. Their deer-skins, which are very numerous, can now be spread without risk of their touching the snow ; and such a bed is capable of affording not merely comfort but luxurious repose, in spite of the rigour of the climate. The skins thus used as blankets are made of a large size and bordered, like some of the

* This birch, they said, had been procured from the southward, by way of *Noowook*. We never met with any of the same kind in those parts of the country which we visited, except that observed by Captain Lyon in the deserted habitations of the Esquimaux near Five Hawser Bay.

jackets, with a fringe of long narrow slips of leather, in which state a blanket is called *kēipik*.

The fire belonging to each family consists of a single lamp, or shallow vessel of *lapis ollaris*, its form being the lesser segment of a circle. The wick composed of dry moss rubbed between the hands till it is quite inflammable, is disposed along the edge of the lamp on the strait side, and a greater or smaller quantity lighted according to the heat required or the fuel that can be afforded. When the whole length of this, which is sometimes above eighteen inches, is kindled, it affords a most brilliant and beautiful light without any perceptible smoke or any offensive smell. The lamp is made to supply itself with oil, by suspending a long thin slice of whale, seal, or sea-horse blubber near the flame, the warmth of which causes the oil to drip into the vessel until the whole is extracted. Immediately over the lamp is fixed a rude and ricketty frame-work of wood, from which their pots are suspended, and serving also to sustain a large hoop of

bone, having a net stretched tight within it. This contrivance, called *Innētāt*, is intended for the reception of any wet things, and is usually loaded with boots, shoes, and mittens.

The fire-place just described as situated at the upper end of the apartment, has always two lamps facing different ways, one for each family occupying the corresponding bed-place. There is frequently also a smaller and less-pretending establishment on the same model—lamp, pot, net and all—in one of the corners next the door; for one apartment sometimes contains three families, which are always closely related, and no married woman, or even a widow without children, is without her separate fire-place.

With all the lamps lighted and the hut full of people and dogs, a thermometer placed on the net over the fire indicated a temperature of 38° ; when removed two or three feet from this situation it fell to 31° , and placed close to the wall stood at 23° , the temperature of the open air at the time being 25° below zero. A greater degree of

warmth than this, produces extreme inconvenience by the dropping from the roofs. This they endeavour to obviate, by applying a little piece of snow to the place from which a drop proceeds, and this adhering, is for a short time an effectual remedy ; but for several weeks in the spring, when the weather is too warm for these edifices, and still too cold for tents, they suffer much on this account.

The most important perhaps of the domestic utensils, next to the lamp already described, are the *ōōtkōösēēks* or stone pots for cooking. These are hollowed out of solid *lapis ollaris*, of an oblong form, wider at the top than at the bottom, all made in similar proportion though of various sizes, corresponding with the dimensions of the lamp which burns under it. The pot is suspended by a line of sinew at each end to the frame-work over the fire, and thus becomes so black on every side that the original colour of the stone is in no part discernible. Many of them were cracked quite across in several places, and mended

by sewing with sinew or rivets of copper, iron, or lead, so as, with the assistance of a lashing and a due proportion of dirt, to render them quite water-tight. I may here remark, that as these people distinguish the Wager River by the name of *Oōtkōōsēēk-sālik*, we were at first led to conjecture that they procured their pots, or the material for making them, in that neighbourhood: this, however, they assured us was not the case, the whole of them coming from Akkoolee, where the stone is found in very high situations. One of the women at Winter Island, who came from that country, said that her parents were much employed in making these pots, chiefly it seems as articles of barter. The asbestos, which they use in the shape of a roundish pointed stick, called *tatko*, for trimming the lamps, is met with about Repulse Bay, and generally, as they said, on low land.

Besides the ootkooseeks, they have circular and oval vessels of whalebone, of various sizes, which, as well as their ivory knives made out of a walrus's tusk, are precisely

similar to those described on the western coast of Baffin's Bay in 1820. They have also a number of smaller vessels of skin sewed neatly together; and a large basket of the same material, resembling a common sieve in shape, but with the bottom close and tight, is to be seen in every apartment. Under every lamp stands a sort of 'save-all,' consisting of a small skin basket for catching the oil that falls over. Almost every family was in possession of a wooden tray very much resembling those used to carry butcher's meat in England, and of nearly the same dimensions, which we understood them to have procured by way of Noowook. They had a number of the bowls or cups already once or twice alluded to as being made out of the thick root of the horn of the musk-ox. Of the smaller part of the same horn they also form a convenient drinking-cup, sometimes turning it up artificially about one-third from the point, so as to be almost parallel to the other part, and cutting it full of small notches as a convenience in grasping it.

These or any other vessels for drinking they call *Immööchiuk*.

Besides the ivory knives, the men were well supplied with a much more serviceable kind, made of iron, and called *panna*. The form of this knife is very peculiar, being seven inches long, two and a quarter broad, quite straight and flat, pointed at the end, and ground equally sharp at both edges; this is firmly secured into a handle of bone or wood, about a foot long, by two or three iron rivets, and has all the appearance of a most destructive spear head, but is nevertheless put to no other purpose than that of a very useful knife, which the men are scarcely ever without, especially on their sealing excursions. For these, and several knives of European form, they are probably indebted to an indirect communication with our factories in Hudson's Bay. The same may be observed of the best of their women's knives, (*ooloo*,) on one of which, of a larger size than usual, were the names of 'Wild and Sorby.' When of their own manufacture, the only iron part was a little

narrow slip let into the bone and secured by rivets. It is curious to observe in this and in numerous other instances, how exactly, amidst all the diversity of time and place, these people have preserved unaltered their manners and habits as mentioned by Crantz. That which an absurd dread of innovation does in China, the want of intercourse with other nations has effected among the Esquimaux.

Of the horn of the musk-ox they make also very good spoons much like ours in shape; and I must not omit to mention their marrow spoons, (*pattēkniuk*, from *pättēk*, marrow,) made out of long narrow hollowed pieces of bone, of which every housewife has a bunch of half a dozen or more tied together, and generally attached to her needle-case.

For the purpose of obtaining fire, the Esquimaux use two lumps of common iron pyrites, from which sparks are struck into a little leathern case, containing moss well dried and rubbed between the hands. If this tinder does not readily catch, a small

quantity of the white floss of the seed of the ground willow is laid above the moss. As soon as a spark has caught, it is gently blown till the fire has spread an inch around, when, the pointed end of a piece of oiled wick being applied, it soon bursts into a flame, the whole process having occupied perhaps two or three minutes.

Among the articles in their possession, which must have been obtained by communication along shore with Hudson's Bay, were two large copper kettles, several open knives with crooked wooden handles, and many fragments of copper, iron, and old files. On a small European axe was observed the name of 'Foster *.'

In enumerating the articles of their food, we might perhaps give a list of every animal inhabiting these regions, as they certainly will at times eat any one of them. Their

* It may perhaps be the means of saving useless conjectures at some future time to mention, that on several knives made by the armourer of the Hecla, the name of 'James Wilkes' was marked, together with the Prince of Wales's feathers.

principle dependence, however, is on the reindeer, (*tōōktoō*;) musk-ox, (*ōōmǫngmǫk*;) in the parts where this animal is found; whale, (*āggāwēk*;) walrus, (*ēi-ū-ēk*;) the large and small seal, (*ōgūke* and *nēitiek*;) and two sorts of salmon, the *ēwēe-tārōke*, (*salmo alpinus*?) and *ichlūōwōke*. The latter is taken by hooks in fresh-water lakes, and the former by spearing in the shoal water of certain inlets of the sea. Of all these animals, they can only procure in the winter the walrus and small seal upon this part of the coast; and these at times, as we have seen, in scarcely sufficient quantity for their subsistence.

They certainly in general prefer eating their meat cooked, and while they have fuel they usually boil it; but this is a luxury and not a necessary to them. Oily as the nature of their principal food is, yet they commonly take an equal proportion of lean to their fat, and unless very hungry do not eat it otherwise. Oil they seldom or never use in any way as a part of their general diet; and even our butter, of which they were

fond, they would not eat without a due quantity of bread *. They do not like salt meat as well as fresh, and never use salt themselves ; but ship's pork or even a red herring did not come amiss to them. Of pea-soup they would eat as much as the sailors could afford to give them ; and that word was the only one, with the exception of our names, which many of them ever learned in English. Among their own luxuries must be mentioned a rich soup called *kāyō*, made of blood, gravy, and water, and eaten quite hot. In obtaining the names of several plants, we learned that they sometimes eat the leaves of sorrel, (*kōngōlek*,) and those of the ground willow ; as also the red berries (*paōōna-rootik*) of the *vaccinum uliginosum*, and the root of the *potentilla pulchella* ; but these cannot be said to form

* Toolooak, who was a frequent visitor at the young gentlemen's mess-table on board the Fury, once evinced this taste, and no small cunning at the same time, by asking alternately for a little more bread, and a little more butter, till he had made a hearty meal.

a part of their regular diet ; scurvy grass they never eat.

Their only drink is water ; and of this, when they can procure it, they swallow an inconceivable quantity ; so that one of the principal occupations of the women during the winter is the thawing of snow in the ootkooseks for this purpose. They cut it into thin slices, and are careful to have it clean, on which account they will bring it from a distance of fifty yards from the huts. They have an extreme dislike to drinking water much above the temperature of 32° . In eating their meals the mistress of the family, having previously cooked the meat, takes a large lump out of the pot with her fingers and hands it to her husband, who placing a part of it between his teeth cuts it off with a large knife in that position, and then passes the knife and meat together to his next neighbour. In cutting off a mouthful of meat the knife passes so close to their lips, that nothing but constant habit could ensure them from the danger of the most terrible gashes ; and it would make an Eng-

lish mother shudder to see the manner in which children, five or six years old, are at all times freely trusted with a knife to be used in this way.

The length of one of the best of seven canoes belonging to these Esquimaux was twenty-five feet, including a narrow-pointed projection, three feet long at each end, which turns a little upward from the horizontal. The extreme breadth, which is just before the circular hole, was twenty-one inches, and the depth ten inches and a half. The plane of the upper surface of the canoe, except in the two extreme projections, bends downwards a little from the centre towards the head and stern, giving it the appearance of what in ships is called 'broken-backed.' The gunwales are of fir, in some instances of one piece, three or four inches broad in the centre and tapering gradually away towards the ends. The timbers, as well as the fore-and-aft connecting pieces, are of the same material, the former being an inch square, and sometimes so close together as to require between forty and fifty of them in

one canoe : which when thus ' in frame ' is one of the prettiest things of the kind that can be imagined. The skin with which the canoe is covered is exclusively that of the *neitiek*, prepared by scraping off the hair and fat with an *ooloo*, and stretching it tight on a frame over the fire ; after which and a good deal of chewing, it is sown on by the women with admirable neatness and strength. Their paddles have a blade at each end, the whole length being nine feet and a half ; the blades are covered with a narrow plate of bone round the ends to secure them from splitting ; they are always made of fir, and generally of several pieces scarfed and woolded together.

In summer they rest their canoes upon two small stones raised four feet from the ground ; and in winter, on a similar structure of snow ; in one case to allow them to dry freely, and in the other to prevent the snow-drift from covering, and the dogs from eating them. The difficulty of procuring a canoe may be concluded from the circumstance of there being at Winter Island twenty

men able to manage one, and only seven canoes among them. Of these, indeed, only three or four were in good repair; the rest being wholly or in part stripped of the skin, of which a good deal was occasionally cut off during the winter, to make boots, shoes, and mittens for our people. We found no *oomiak*, or women's boat, among them, and understood that they were not in the habit of using them, which may in part be accounted for by their passing so much of the summer in the interior; they knew very well, however, what they were, and made some clumsy models for them for our people.

In the weapons used for killing their game there is considerable variety, according to the animal of which they are in pursuit. The most simple of these is the *ōōnāk*, which they use only for killing the small seal. It consists of a light staff of wood, four feet in length, having at one end the point of a narwhal's horn, from ten to eighteen inches long, firmly secured by rivets and woodings; at the other end, is a smaller and less effective point of the same kind.

To prevent losing the ivory part, in case of the wood breaking, a stout thong runs along the whole length of the wood, each end passing through a hole in the ivory, and the bight secured in several places to the staff. In this weapon, as far as it has yet been described, there is little art or ingenuity displayed; but a considerable degree of both in an appendage called *siätkö*, consisting of a piece of bone three inches long, and having a point of iron at one end, and at the other end a small hole or socket to receive the point of the oonak. Through the middle of this instrument is secured the *ällek*, or line of thong, of which every man has, when sealing, a couple of coils, each from four to six fathoms long, hanging at his back. These are made of the skin of the *oguke* as in Greenland*, and are admirably adapted to the purpose, both on account of their strength, and the property which they possess of preserving their pliability even in the most intense frost.

* Crantz, i. 125.

When a seal is seen, the siatko is taken from a little leathern case, in which, when out of use, it is carefully enclosed, and attached by its socket to the point of the spear; in this situation it is retained by bringing the allek tight down and fastening it round the middle of the staff by what seamen call a 'slippery hitch,' which may instantly be disengaged by pulling on the other end of the line. As soon as the spear has been thrown, and the animal struck, the siatko is thus purposely separated; and being slung by the middle, now performs very effectually the important office of a barb, by turning at right angles to the direction in which it has entered the orifice. This device is in its principle superior even to our barb; for the instant any strain is put upon the line it acts like a toggle, opposing its length to a wound only as wide as its own breadth.

The *āklēak*, or *aklēēgā*, used for the large seal, has a blown bladder attached to the staff, for the purpose of impeding the animal in the water. The weapon with two long

parallel prongs of bone or iron, obtained from the natives of the Savage Islands, these people also called *akleak*, and said it was for killing seals.

The third and largest weapon is that called *katteelik*, with which the walrus and whale are attacked. The staff of this is not longer, but much stouter than that of the others, especially towards the middle, where there is a small shoulder of ivory securely lashed to it for the thumb to rest against, and thus to give additional force in throwing or thrusting the spear. The ivory point of this weapon is made to fit into a socket at the end of the staff, where it is secured by double thongs, in such a manner as steadily to retain its position when a strain is put upon it in the direction of its length, but immediately disengaging itself with a sort of spring, when any lateral strain endangers its breaking. The *siatko* is always used with this spear; and to the end of the *allek*, when the animal pursued is in open water, they attach a whole seal-skin (*hōw-wūt-tă*), inflated like a blad-

der, for the purpose of tiring it out in its progress through the water.

They have a spear called *ippoo* for killing deer in the water. They describe it as having a light staff and a small head of iron ; but they had none of these so fitted in the winter. The *nūgūee*, or dart for birds, has, besides its two ivory prongs at the end of the staff, three divergent ones in the middle of it, with several small double barbs upon them turning inwards ; they differ from the *nuguit* of Greenland,* and that of the Savage Islands, in having these prongs always of unequal lengths. To give additional velocity to the bird-dart, they use a throwing-stick (*noke-shak*), which is probably the same as the 'hand-bord' figured by Crantz. It consists of a flat board about eighteen inches in length, having a groove to receive the staff, two others and a hole for the fingers and thumb, and a small spike fitted for a hole in the end of the staff. This instru-

* Crantz.

ment is used for the bird-dart only. The spear for salmon or other fish, called *kākē-wēi*, consists of a wooden staff with a spike of bone or ivory, three inches long, secured at one end. On each side of the spike is a curved prong, much like that of a pitch-fork, but made of flexible horn which gives them a spring, and having a barb on the inner part of the point turning downwards. Their fish-hooks (*kakliōkia*) consist only of a nail crooked and pointed at one end, the other being let into a piece of ivory to which the line is attached. A piece of deer's horn or curved bone, only a foot long, is used as a rod, and completes this very rude part of their fishing-gear.

Of their mode of killing seals in the winter, I have already spoken in the course of the foregoing narrative, as far as we were enabled to make ourselves acquainted with it. In their summer exploits on the water, the killing of the whale is the most arduous undertaking which they have to perform; and one cannot sufficiently admire the courage and activity which, with gear apparently so

inadequate, it must require to accomplish this business. Okotook, who was at the killing of two whales in the course of a single summer, and who described the whole of it quite *con amore*, mentioned the names of thirteen men who, each in his canoe, had assisted on one of these occasions. When a fish is seen lying on the water, they cautiously paddle up astern of him, till a single canoe, preceding the rest, comes close to him on one quarter, so as to enable the man to drive the *katteelik* into the animal with all the force of both arms. This having the *siatko*, a long *allek*, and the inflated seal-skin attached to it, the whale immediately dives, taking the whole apparatus with him except the *katteelik*, which, being disengaged in the manner before described, floats to the surface, and is picked up by its owner. The animal reappearing after some time, all the canoes again paddle towards him, some warning being given by the seal-skin buoy floating on the surface. Each man being furnished like the first, they repeat the blows as often as they find opportunity,

till perhaps every line has been thus employed. After pursuing him in this manner, sometimes for half a day, he is at length so wearied by the resistance of the buoys, and exhausted by loss of blood, as to be obliged to rise more and more often to the surface, when, by frequent wounds with their spears, they succeed in killing him, and tow their prize in triumph to the shore. It is probable that with the whale, as with the smaller sea-animals, some privilege or perquisite is given to the first striker; and, like our own fishermen, they take a pride in having it known that their spear has been the first to inflict a wound. They meet with the most whales on the coast of *Eiwillick*.

In attacking the walrus in the water, they use the same gear, but much more caution, than with the whale, always throwing the *katteelik* from some distance, lest the animal should attack the canoe and demolish it with his tusks. The walrus is in fact the only animal with which they use any caution of this kind. They like the flesh better than that of the seal; but venison is preferred by

them to either of these, and indeed to any other kind of meat.

At Winter Island they carefully preserved the heads of all the animals killed during the winter, except two or three of the walrus, which we obtained with great difficulty. There is probably some superstition attached to this, but they told us that they were to be thrown into the sea in the summer, which a Greenlander* studiously avoids doing; and indeed, at Igloolik, they had no objection to part with them before the summer arrived. As the blood of the animals which they kill is all used as food of the most luxurious kind, they are careful to avoid losing any portion of it; for this purpose they carry with them on their excursions a little instrument of ivory called *tōopōōtā*, in form and size exactly resembling a 'twenty-penny' nail, with which they stop up the orifice made by the spear, by thrusting it through the skin by the sides of the wound, and securing it with a

* Crantz, i. 216.

twist. I must here also mention a simple little instrument called *keipküttuk*, being a slender rod of bone nicely rounded, and having a point at one end and a knob or else a lanyard at the other. The use of this is to thrust through the ice where they have reason to believe a seal is at work underneath. This little instrument is sometimes made as delicate as a fine wire, that the seal may not see it; and a part still remaining above the surface informs the fishermen by its motion whether the animal is employed in making his hole; if not, it remains undisturbed, and the attempt is given up in that place.

One of the best of their bows was made of a single piece of fir, four feet eight inches in length, flat on the inner side and rounded on the outer, being five inches in girth about the middle, where, however, it is strengthened on the concave side, when strung, by a piece of bone ten inches long, firmly secured by tree-nails of the same material. At each end of the bow is a knob of bone, or sometimes of wood covered

with leather, with a deep notch for the reception of the string. The only wood which they can procure, not possessing sufficient elasticity combined with strength, they ingeniously remedy the defect by securing to the back of the bow, and to the knobs at each end, a quantity of small lines, each composed of a plat or 'sinnet' of three sinews. The number of lines thus reaching from end to end is generally about thirty; but besides these, several others are fastened with hitches round the bow, in pairs, commencing eight inches from one end, and again united at the same distance from the other, making the whole number of strings in the middle of the bow sometimes amount to sixty. These being put on with the bow somewhat bent the contrary way, produce a spring so strong as to require considerable force as well as knack in stringing it, and giving the requisite velocity to the arrow. The bow is completed by a woolding round the middle and a wedge or two, here and there, driven in to tighten it. A bow in one piece is however very rare; they

generally consist of from two to five pieces of bone of unequal lengths, secured together by rivets and tree-nails.

The arrows vary in length from twenty to thirty inches, according to the materials that can be commanded. About two-thirds of the whole length is of fir rounded, and the rest of bone let by a socket into the wood, and having a head of thin iron, or more commonly of slate, secured into a slit by two tree-nails. Towards the opposite end of the arrow are two feathers, generally of the spotted oval, not very neatly lashed on. The bow-string consists of from twelve to eighteen small lines of three-sinew sinnet, having a loose twist, and with a separate becket of the same size for going over the knobs at the end of the bow.

We tried their skill in archery by getting them to shoot at a mark for a prize, though with bows in extremely bad order on account of the frost, and their hands very cold. The mark was two of their spears stuck upright in the snow, their breadth being three inches and a half. At twenty yards they

struck this every time; at thirty, sent the arrows always within an inch or two of it; and at forty or fifty yards, I should think, would generally hit a fawn if the animal stood still. These weapons are perhaps sufficient to inflict a mortal wound at something more than that distance, for which, however, a strong arm would be required. The animals which they kill with the bow and arrow for their subsistence are principally the musk-ox and deer, and less frequently the bear, wolf, fox, hare, and some of the smaller animals.

It is a curious fact, that the musk-ox is very rarely found to extend his migrations to the eastward of a line passing through Repulse Bay, or about the meridian of 86° West, while, in a northern direction, we know that he travels as far as the seventy-sixth degree of latitude. In Greenland this animal is known only by vague and exaggerated report; on the western coast of Baffin's Bay it has certainly been seen, though very rarely, by the present inhabitants; and the eldest person belonging to

the Winter Island tribe had never seen one to the eastward of *Eivillik*, where, as well as at *Akkōōlēē*, they are said to be numerous on the banks of fresh-water lakes and streams. The few men who had been present at the killing of one of these creatures, seemed to pride themselves very much upon it. Toolooak, who was about seventeen years of age, had never seen either the musk-ox or the *kābleē-ārīoo*—a proof that the latter, also, is not common in this corner of America.

The rein-deer are killed by the Esquimaux in great abundance in the summer season, partly by driving them from islands or narrow necks of land into the sea, and then spearing them from their canoes; and partly by shooting them from behind heaps of stones raised for the purpose of watching them, and imitating their peculiar bellow or grunt. Among the various artifices which they employ for this purpose, one of the most ingenious consists in two men walking directly *from* the deer they wish to kill, when the animal almost always follows them.

As soon as they arrive at a large stone, one of the men hides behind it with his bow, while the other continuing to walk on soon leads the deer within range of his companion's arrows. They are also very careful to keep to leeward of the deer, and will scarcely go out after them at all when the weather is calm. For several weeks in the course of the summer, some of these people almost entirely give up their fishery on the coast, retiring to the banks of lakes several miles in the interior, which they represent as large and deep, and abounding with salmon, while the pasture near them affords good feeding to numerous herds of deer.

The distance to which these people extend their inland migrations, and the extent of coast of which they possess a personal knowledge, are really very considerable. Of these we could at the time of our first intercourse form no correct judgment, from our uncertainty as to the length of what they call a *seenik* (sleep), or one day's journey, by which alone they could describe to us, with the help of their imperfect arith-

metic, the distance from one place to another. But our subsequent knowledge of the coast has cleared up much of this difficulty, affording the means of applying to their hydrographical sketches a tolerably accurate scale for those parts which we have not hitherto visited. A great number of these people, who were born at Amitioke and Igloodik, had been to *Noowook*, or nearly as far south as Chesterfield Inlet, which is about the *ne plus ultra* of their united knowledge in a southerly direction. Not one of them had been by water round to Akkoolee, but several by land; in which mode of travelling they only consider that country from three to five days' journey from Repulse Bay. Okotook and a few others of the Winter Island tribe had extended their peregrinations a considerable distance to the northward, over the large insular piece of land to which we have applied the name of Cockburn Island; which they described as high land, and the resort of numerous rein-deer. Here Okotook informed us that he had seen icebergs,

which these people call by a name (*piccā-lōōyāk*) having in its pronunciation some affinity to that used in Greenland*. By the information afterwards obtained when nearer the spot, we had reason to suppose this land must reach beyond the seventy-second degree of latitude in a northerly direction; so that these people possess a personal knowledge of the Continent of America and its adjacent islands, from that parallel to Chesterfield Inlet in $63\frac{3}{4}^{\circ}$, being a distance of more than five hundred miles reckoned in a direct line, besides the numerous turnings and windings of the coast along which they are accustomed to travel. Ewerat and some others had been a considerable distance up the Wager River; but no record had been preserved among them of Captain Middleton's visit to that inlet about the middle of the last century.

Of the continental shore to the westward of Akkoolee, the Esquimaux invariably disclaimed the slightest personal knowledge;

* *Illukiat.*

for no land can be seen in that direction from the hills. They entertain, however, a confused idea that neither Esquimaux nor Indians could there subsist for want of food. Of the Indians they know enough by tradition to hold them in considerable dread, on account of their cruel and ferocious manners. When, on one occasion, we related the circumstances of the inhuman massacre described by Hearne, they crowded round us in the hut, listening with mute and almost breathless attention; and the mothers drew their children closer to them, as if to guard them from the dreadful catastrophe. It is worthy of notice, that they call the Indians by a name (*Eërt-kěi-lěe*) which appears evidently the same as that * applied by the Greenlanders to the man-eaters supposed to inhabit the eastern coast of their country, and to whom terror has assigned a face like that of a dog.

The Esquimaux take some animals in traps, and by a very ingenious contrivance of

* *Erkigit*. Crantz, i. 208, 269.

this kind they caught two wolves at Winter Island. It consists of a small house built of ice, at one end of which a door, made of the same plentiful material, is fitted to slide up and down in a groove; to the upper part of this a line is attached, and, passing over the roof, is let down into the trap at the inner end, and there held by slipping an eye in the end of it over a peg of ice left for the purpose. Over the peg, however, is previously placed a loose grummet, to which the bait is fastened, and a false roof placed over all to hide the line. The moment the animal drags at the bait, the grummet slips off the peg, bringing with it the line that held up the door, and this falling down closes the trap and secures him.

A trap for birds is formed by building a house of snow just large enough to contain one person, who closes himself up in it. On the top is left a small aperture, through which the man thrusts one of his hands to secure the bird the moment he alights to take away a bait of meat laid beside it. It is principally gulls that are taken thus; and

the boys sometimes amuse themselves in this manner. A trap in which they catch foxes has been mentioned in another place.

The sledges belonging to these Esquimaux were in general large and heavily constructed, being more adapted to the carriage of considerable burdens than to very quick travelling. They varied in size, being from six and a half to nine feet in length, and from eighteen inches to two feet in breadth. Some of those at Igloolik were of larger dimensions, one being eleven feet in length, and weighing two hundred and sixty-eight pounds, and two or three others above two hundred pounds. The runners are sometimes made of the right and left jaw-bones of a whale; but more commonly of several pieces of wood or bone scarfed and lashed together, the interstices being filled to make all smooth and firm with moss stuffed in tight, and then cemented by throwing water to freeze upon it. The lower part of the runner is shod with a plate of harder bone, coated with fresh-water ice to make it run smoothly, and to

avoid wear and tear, both which purposes are thus completely answered. This coating is performed with a mixture of snow and fresh-water about half an inch thick, rubbed over it till it is quite smooth and hard upon the surface, and this is usually done a few minutes before setting out on a journey. When the ice is only in part worn off, it is renewed by taking some water into the mouth, and spirting it over the former coating. We noticed a sledge which was extremely curious, on account of one of the runners and a part of the other being constructed without the assistance of wood, iron, or bone of any kind. For this purpose, a number of seal-skins being rolled up and disposed into the requisite shape, an outer coat of the same kind was sewed tightly round them; this formed the upper half of the runner, the lower part of which consisted entirely of moss moulded while wet into the proper form, and being left to freeze, adhering firmly together and to the skins. The usual shoeing of smooth ice beneath completed the runner, which for more

than six months out of twelve, in this climate, was nearly as hard as any wood ; and for winter use, no way inferior to those constructed of more durable materials. The cross-pieces which form the bottom of the sledge are made of bone, wood, or anything they can muster. Over these is generally laid a seal-skin as a flooring, and in the summer time a pair of deer's horns are attached to the sledge as a back, which in the winter are removed, to enable them when stopping to turn the sledge up, so as to prevent the dogs running away with it. The whole is secured by lashings of thong, giving it a degree of strength combined with flexibility which perhaps no other mode of fastening could effect.

The dogs of the Esquimaux, of which these people possessed above a hundred, have been so often described that there may seem little left to add respecting their external appearance, habits, and use. Our visits to Igloolik having, however, made us acquainted with some not hitherto described, I shall here offer a further account of these

invaluable animals. In the form of their bodies, their short pricked ears, thick furry coat, and bushy tail, they so nearly resemble the wolf of these regions, that, when of a light or brindled colour, they may easily at a little distance be mistaken for that animal. To an eye accustomed to both, however, a difference is perceptible in the wolf's always keeping his head down, and his tail between his legs in running, whereas the dogs almost always carry their tails handsomely curled over the back. A difference less distinguishable, when the animals are apart, is the superior size and more muscular make of the wild animal, especially about the breast and legs. The wolf is also, in general, full two inches taller than any Esquimaux dog we have seen ; but those met with in 1818, in the latitude of 76° , appear to come nearest to it in that respect. The tallest dog at Igloolik stood two feet one inch from the ground, measured at the withers ; the average height was about two inches less than this.

The colour of the dogs varies from a

white, through brindled, to black and white, or almost entirely black. Some are also of a reddish or ferruginous colour, and others have a brownish-red tinge on their legs, the rest of their bodies being of a darker colour, and these last were observed to be generally the best dogs. Their hair in the winter is from three to four inches long; but besides this, nature furnishes them, during this rigorous season, with a thick under coating of close soft wool, which they begin to cast in the spring. While thus provided, they are able to withstand the most inclement weather without suffering from the cold; and at whatever temperature the atmosphere may be, they require nothing but a shelter from the wind to make them comfortable, and even this they do not always obtain. They are also wonderfully enabled to endure the cold even on those parts of the body which are not thus protected, for we have seen a young puppy sleeping, with its bare paw laid on an ice-anchor, with the thermometer at -30° , which with one of our dogs would have produced imme-

diate and intense pain, if not subsequent mortification. They never bark, but have a long melancholy howl like that of the wolf, and this they will sometimes perform in concert for a minute or two together. They are besides always snarling and fighting among one another, by which several of them are generally lame. When much caressed and well fed, they become quite familiar and domestic; but this mode of treatment does not improve their qualities as animals of draught. Being desirous of ascertaining whether these dogs are wolves in a state of domestication, a question which we understood to have been the subject of some speculation, Mr. Skeoch at my request made a skeleton of each, when the number of all the vertebræ was found to be the same in both *, and to correspond with the well-known anatomy of the wolf.

When drawing a sledge, the dogs have a simple harness (*annoo*) of deer or seal-skin, going round the neck by one bight,

* Cervical, 7; dorsal, 13; lumbar, 7; sacral, 3; caudal, 19.

and another for each of the fore-legs, with a single thong leading over the back and attached to the sledge as a trace. Though they appear at first sight to be huddled together without regard to regularity, there is, in fact, considerable attention paid to their arrangement, particularly in the selection of a dog of peculiar spirit and sagacity, who is allowed, by a longer trace, to precede the rest as leader, and to whom, in turning to the right or left, the driver usually addresses himself. This choice is made without regard to age or sex, and the rest of the dogs take precedence according to their training or sagacity, the least effective being put nearest the sledge. The leader is usually from eighteen to twenty feet from the fore part of the sledge, and the hindmost dog about half that distance, so that when ten or twelve are running together, several are nearly abreast of each other. The driver sits quite low on the fore part of the sledge, with his feet overhanging the snow on one side, and having in his hand a whip, of which the handle, made either of wood, bone, or

whalebone, is eighteen inches, and the lash more than as many feet in length. The part of the thong next the handle is platted a little way down to stiffen it and give it a spring, on which much of its use depends; and that which composes the lash is chewed by the women to make it flexible in frosty weather. The men acquire from their youth considerable expertness in the use of this whip, the lash of which is left to trail along the ground by the side of the sledge, and with which they can inflict a very severe blow on any dog at pleasure. Though the dogs are kept in training entirely by fear of the whip, and indeed without it would soon have their own way, its immediate effect is always detrimental to the draught of the sledge; for not only does the individual that is struck draw back and slacken his trace, but generally turns upon his next neighbour, and this passing on to the next occasions a general divergency, accompanied by the usual yelping and showing of teeth. The dogs then come together again by degrees, and the draught of the sledge is

accelerated; but even at the best of times, by this rude mode of draught the traces of one-third of the dogs form an angle of thirty or forty degrees on each side of the direction in which the sledge is advancing. Another great inconvenience attending the Esquimaux method of putting the dogs to, besides that of not employing their strength to the best advantage, is the constant entanglement of the traces by the dogs repeatedly doubling under from side to side to avoid the whip, so that, after running a few miles, the traces always require to be taken off and cleared.

In directing the sledge the whip acts no very essential part, the driver for this purpose using certain words, as the carters do with us, to make the dogs turn more to the right or left. To these a good leader attends with admirable precision, especially if his own name be repeated at the same time, looking behind over his shoulder with great earnestness, as if listening to the directions of the driver. On a beaten track, or even where a single foot or sledge-mark is occa-

sionally discernible, there is not the slightest trouble in guiding the dogs; for even in the darkest night and in the heaviest snow-drift, there is little or no danger of their losing the road, the leader keeping his nose near the ground, and directing the rest with wonderful sagacity. Where, however, there is no beaten track, the best driver among them makes a terribly circuitous course, as all the Esquimaux roads plainly show; these generally occupying an extent of six miles, when with a horse and sledge the journey would scarcely have amounted to five. On rough ground, as among hummocks of ice, the sledge would be frequently overturned or altogether stopped if the driver did not repeatedly get off, and by lifting or drawing it to one side steer it clear of those accidents. At all times, indeed, except on a smooth and well-made road, he is pretty constantly employed thus with his feet, which, together with his never-ceasing vociferations and frequent use of the whip, renders the driving of one of these vehicles by no means a pleasant or easy task. When

the driver wishes to stop the sledge, he calls out 'Wo, woa,' exactly as our carters do, but the attention paid to his command depends altogether on his ability to enforce it. If the weight is small and the journey homeward, the dogs are not to be thus delayed; the driver is therefore obliged to dig his heels into the snow to obstruct their progress; and having thus succeeded in stopping them, he stands up with one leg before the foremost cross-piece of the sledge, till, by means of laying the whip gently over each dog's head, he has made them all lie down. He then takes care not to quit his position; so that should the dogs set off he is thrown upon the sledge, instead of being left behind by them.

With heavy loads the dogs draw best with one of their own people, especially a woman, walking a little way a-head; and in this case they are sometimes enticed to mend their pace by holding a mitten to the mouth, and then making the motion of cutting it with a knife, and throwing it on the snow, when the dogs, mistaking it for meat, hasten for-

ward to pick it up. The women also entice them from the huts in a similar manner. The rate at which they travel depends, of course, on the weight they have to draw and the road on which their journey is performed. When the latter is level and very hard and smooth, constituting what in other parts of North America is called 'good sleighing,' six or seven dogs will draw from eight to ten hundred weight, at the rate of seven or eight miles an hour for several hours together, and will easily under those circumstances perform a journey of fifty or sixty miles a day; on untrodden snow, five-and-twenty or thirty miles would be a good day's journey. The same number of well-fed dogs, with a weight of only five or six hundred pounds (that of the sledge included) are almost unmanageable, and will on a smooth road run any way they please at the rate of ten miles an hour. The work performed by a greater number of dogs is, however, by no means in proportion to this; owing to the imperfect mode already described of employing the strength of these

sturdy creatures, and to the more frequent snarling and fighting occasioned by an increase of numbers.

In the summer, when the absence of snow precludes the use of sledges, the dogs are still made useful on journeys and hunting excursions, by being employed to carry burdens in a kind of saddle-bags laid across their shoulders. A stout dog thus accoutred will accompany his master, laden with a weight of about twenty or twenty-five pounds. When leading the dogs, the Esquimaux take a half hitch with the trace round their necks to prevent their pulling, and the same plan is followed when a sledge is left without a keeper. They are also in the habit of tethering them, when from home, by tying up one of the fore legs; but a still more effectual method is similar to that which we saw employed by the Greenlanders of Prince Regent's Bay, and consists in digging with their spears two holes in the ice in an oblique direction and meeting each other, so as to leave an eye-bolt to which the dogs are fastened.

The scent of the Esquimaux dogs is excellent; and this property is turned to account by their masters in finding the seal holes, which these invaluable animals will discover entirely by the smell at a very great distance. The track of a single deer upon the snow will in like manner set them off at a full gallop, when travelling, at least a quarter of a mile before they arrive at it, when they are with difficulty made to turn in any other direction; and the Esquimaux are accustomed to set them after those animals to hunt them down when already wounded with an arrow. In killing bears the dogs act a very essential part, and two or three of them when led on by a man will eagerly attack one of those ferocious creatures. An Esquimaux seldom uses any other weapon than his spear and *panna* in this encounter, for which the readiness of the dogs may be implied from the circumstance of the word 'nennook' (bear) being often used to encourage them when running in a sledge. Indeed the only animal which they are not eager to chase is the wolf, of

which the greater part of them seem to have an instinctive dread, giving notice at night of their approach to the huts by a loud and continued howl. There is not one dog in twenty among them that will voluntarily, or indeed without a great deal of beating, take the water, if they think it is out of their depth, and the few that would do so were spoken of as extraordinary exceptions.

The Esquimaux in general treat their dogs much as an unfeeling master does his slaves ; that is, they take just as much care of them as their own interest is supposed to require. The bitches with young are in the winter allowed to occupy a part of their own beds, where they are carefully attended and fed by the women, who will even supply the young ones with meat and water from their mouths as they do their own children, and not unfrequently also carry them in their hoods to take care of them. It is probably on this account that the dogs are always so much attached to the women, who can at any time catch them or entice them from the huts, when the men fail. Two

females that were with young on board the *Fury* in the month of February brought forth six and seven at a litter, and the former number were all females. Their feeding, which, both in summer and winter, principally consists of *kāōw*, or the skin and part of the blubber of the walrus, is during the latter season very precarious, their masters having then but little to spare. They therefore become extremely thin at that time of the year, and would scarcely be recognised as the same animals as when regularly fed in the summer. No wonder, therefore, that they will eat almost anything however tough or filthy, and that neither whipping nor shouting will prevent their turning out of the road, even when going at full speed, to pick up whatever they espy. When at the huts they are constantly creeping in to pilfer what they can, and half the time of the people sitting there is occupied in vociferating their names and driving them by most unmerciful blows out of the apartments. The dogs have no water to drink during the winter, but lick up some clean snow occa-

sionally as a substitute; nor indeed if water be offered them, do they care about it unless it happens to be oily. They take great pleasure in rolling in clean snow, especially after or during a journey, or when they have been confined in a house during the night. Notwithstanding the rough treatment which they receive from their masters their attachment to them is very great, and this they display after a short absence by jumping up and licking their faces all over with extreme delight. The Esquimaux, however, never caress them, and indeed scarcely ever take any notice of them but when they offend, and they are not then sparing in their blows. The dogs have all names, to which they attend with readiness, whether drawing in a sledge or otherwise. Their names are frequently the same as those of the people, and in some instances are given after the relations of their masters, which seems to be considered an act of kindness among them. Upon the whole, notwithstanding the services performed by these valuable creatures, I am of opinion that art cannot well have

done less towards making them useful, and that the same means in almost any other hands would be employed to greater advantage.

END OF THE FOURTH VOLUME.

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